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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region III  
841 Chestnut Street  
Philadelphia, Pennsylvania 19107

November 8, 1994

SUBJECT: Risk-Based Concentration Table, Fourth Quarter 1994

FROM: Roy L. Smith, Ph.D., Senior Toxicologist  
Technical Support Section (3HW13)

TO: RBC Table mailing list

Attached is the EPA Region III risk-based concentration (RBC) table, which we have distributed quarterly to all interested parties since 1991. If you are not currently on the mailing list, but would like to be, please contact Anna Poulton (phone: 215-597-3179, fax: 215-597-9890) and give her your name, address, and phone and fax numbers. (This is the only information she needs; faxing parts of the table or cover memo is not necessary.)

**IMPORTANT MESSAGE:** It's once again time to re-register for the RBC table mailing list. We need to hear from you periodically to ensure that you still have an interest in the table, and that we have your correct address. If you have been on the mailing list since before October 1993, and would like to continue receiving the RBC table, please fax your request to re-register (or register for the first time) to Anna Poulton, along with any needed address or phone number changes. You need not respond if you were placed on the mailing list after October 1993, or if you are a Region III staff member. Please don't phone to re-register; we need hard copy to help justify continued funding. Thanks for your cooperation.

The table contains reference doses and carcinogenic potency slopes (obtained from IRIS through October 1, 1994, HEAST through March 1994, the Superfund Health Risk Technical Support Center, and other EPA sources) for nearly 600 chemicals. These toxicity constants have been combined with "standard" exposure scenarios to calculate RBCs - chemical concentrations corresponding to fixed levels of risk (*i.e.*, a hazard quotient of 1, or lifetime cancer risk of  $10^{-6}$ , whichever occurs at a lower concentration) in water, air, fish tissue, and soil.

The Region III toxicologists use the table to screen sites not yet on the NPL, respond rapidly to citizen inquiries, and spot-check formal baseline risk assessments. The background materials provide the complete basis for all the calculations, with the intent of showing users exactly how the RBCs were developed. Simply put, RBCs are risk assessments run in reverse. For a single contaminant in a single medium, under standard default exposure assumptions, the RBC corresponds to the target risk or hazard quotient.

The calculations also have several important limitations. Specifically excluded from consideration are (1) transfers from soil to air and groundwater, and (2) cumulative risk from multiple contaminants or media. Also, the toxicity information in the table has been assembled by hand, and (despite extensive checking and years of use) may contain errors. It's advisable to cross-check before relying on any RfDs or CPSs in the table. If you find any errors, please

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send me a note.

Lately, many callers have asked whether the risk-based concentrations can be used as valid no-action levels or cleanup levels, especially for soils.. The answer is a bit complex. First, it is important to realize that the RBC table does not constitute regulation or guidance, and should not be viewed as a substitute for a site-specific risk assessment. For sites where:

1. A single medium is contaminated;
2. A single contaminant contributes nearly all of the health risk;
3. Volatilization or leaching of that contaminant from soil is expected not to be significant;
4. The exposure scenarios used in the RBC table are appropriate for the site;
5. The fixed risk levels used in the RBC table are appropriate for the site; and
6. Risk to ecological receptors is expected not to be significant;

the risk-based concentrations would probably be protective as no-action levels or cleanup goals. However, to the extent that a site deviates from this description, as most do, the RBCs would not necessarily be appropriate.

*To summarize, the table should generally not be used to (1) set cleanup or no-action levels at CERCLA or RCRA Corrective Action sites, (2) substitute for EPA guidance for preparing baseline risk assessments, or (3) determine if a waste is hazardous under RCRA.*

This issue of the RBC table includes new toxicity constants and media concentrations, which are marked on the table in underlined boldface print.

I get many calls about the RBC table, but I'm often unavailable to answer the phone. Many of you have the same problem, so we play a lot of "phone tag". It's usually easier and more effective to fax me (at 215-597-9890) with your technical questions and concerns, and for me to respond by return fax. Of course, if you don't have access to a fax machine, I will also continue to respond to voice mail messages.

Attachment

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**Risk-Based Concentration Table**  
**Background Information**

**General:** Separate carcinogenic and non-carcinogenic risk-based concentrations were calculated for each compound for each pathway. The concentration in the table is the lower of the two, rounded to two significant figures. The following terms and values were used in the calculations:

Exposure variables	Value	Name
1-General:		
Carcinogenic potency slope oral (risk per mg/kg/d):	*	CPSo
Carcinogenic potency slope inhaled (risk per mg/kg/d):	*	CPSi
Reference dose oral (mg/kg/d):	*	RfDo
Reference dose inhaled (mg/kg/d):	*	RfDi
Target cancer risk:	1e-06	TR
Target hazard quotient:	1	THQ
Body weight, adult (kg):	70	BWa
Body weight, age 1-6 (kg):	15	BWc
Averaging time carcinogens (d):	25550	ATc
Averaging time non-carcinogens (d):	ED*365	ATn
Inhalation, adult (m <sup>3</sup> /d):	20	IRAA
Inhalation, child (m <sup>3</sup> /d):	12	IRAc
Inhalation factor, age-adjusted (m <sup>3</sup> -y/kg-d):	11.66	IFAdj
Tap water ingestion, adult (L/d):	2	IRWa
Tap water ingestion, age 1-6 (L/d):	1	IRWc
Tap water ingestion factor, age-adjusted (L-y/kg-d):	1.09	IFWadj
Fish ingestion (g/d):	54	IRF
Soil ingestion, adult (mg/d):	100	IRSa
Soil ingestion, age 1-6 (mg/d):	200	IRS <sub>c</sub>
Soil ingestion factor, age adjusted (mg-y/kg-d):	114.29	IFSadj
2-Residential:		
Exposure frequency (d/y):	350	EFr
Exposure duration, total (y):	30	EDtot

Exposure variables	Value	Name
Exposure duration, age 1-6 (y):	6	EDc
Volatilization factor (L/m <sup>3</sup> ):	0.5	VF
3-Occupational:		
Exposure frequency (d/y):	250	EFo
Exposure duration (y):	25	EDo
* = Contaminant-specific toxicity parameters		

The priority among sources of toxicological constants was as follows: (1) IRIS, (2) HEAST, (3) HEAST alternative method, (4) EPA Superfund Health Risk Technical Support Center, (5) withdrawn from IRIS or HEAST, and (6) other EPA documents. Each source was used only if numbers from higher-priority sources were unavailable. The EPA Superfund Health Risk Technical Support Center, part of the Chemical Mixtures Branch of ECAO-Cincinnati, develops provisional RfDs and CPSs on request for contaminants not in IRIS or HEAST. These provisional values are labeled "e = EPA-ECAO provisional" in the table. It is possible they may be obsolete. If one of the "e" constants is important to a Superfund risk assessment, consider requesting, through a Regional risk assessor, a new provisional value.

#### Algorithms:

1. Age-adjusted factors: Because contact rates with tap water, ambient air, and residential soil are different for children and adults, carcinogenic risks during the first 30 years of life were calculated using age-adjusted factors. These factors approximated the integrated exposure from birth until age 30 by combining contact rates, body weights, and exposure durations for two age groups - small children and adults. The age-adjusted factor for soil was obtained from RAGS IB; the others were developed by analogy.

a. Air inhalation ([m<sup>3</sup>· y]/[kg· d]):

$$IFAadj = \frac{EDc \cdot IRAc}{BWc} + \frac{(EDtot - EDc) \cdot IRAa}{BWa}$$

b. Tap water ingestion ([L· y]/[kg· d]):

$$IFWadj = \frac{EDc \cdot IRWc}{BWc} + \frac{(EDtot - EDc) \cdot IRWa}{BWa}$$

## c. Soil ingestion ([mg·y]/[kg·d]):

$$IFSadj = \frac{EDc \cdot IRS_c}{BW_c} + \frac{(ED_{tot} - EDc) \cdot IRS_a}{BW_a}$$

2. Residential water use ( $\mu\text{g/L}$ ). Volatilization terms were calculated only for compounds with "\*\*\*\*" in the "VOC" column. Compounds having a Henry's Law constant greater than  $10^{-5}$  were considered volatile. The list may be incomplete, but is unlikely to include false positives. The equations and the volatilization factor (VF, above) were obtained from RAGS IB. Oral potency slopes and reference doses were used for both oral and inhaled exposures for volatile compounds lacking inhalation values. Inhaled potency slopes were substituted for unavailable oral potency slopes only for volatile compounds; inhaled RfDs were substituted for unavailable oral RfDs for both volatile and non-volatile compounds.

a. Carcinogens: Calculations were based on combined childhood and adult exposure.

$$\frac{TR \cdot AT_c \cdot 1000 \frac{\mu\text{g}}{\text{mg}}}{EF_r \cdot ([VF \cdot IFA_{adj} \cdot CPS_i] + [IFW_{adj} \cdot CPS_o])}$$

b. Non-carcinogens: Calculations were based on adult exposure.

$$\frac{THQ \cdot BW_a \cdot AT_n \cdot 1000 \frac{\mu\text{g}}{\text{mg}}}{EF_r \cdot ED_{tot} \cdot \left( \frac{VF \cdot IRA_a}{RfDi} + \frac{IRW_a}{RfDo} \right)}$$

3. Air ( $\mu\text{g/m}^3$ ). Oral potency slopes and references were used where inhalation values were not available.

a. Carcinogens: Calculations were based on combined childhood and adult exposure.

$$\frac{TR \cdot AT_c \cdot 1000 \frac{\mu\text{g}}{\text{mg}}}{EF_r \cdot IFA_{adj} \cdot CPS_i}$$

b. Non-carcinogens: Calculations were based on adult exposure.

$$\frac{THQ \cdot RfDi \cdot BW_a \cdot AT_n \cdot 1000 \frac{\mu\text{g}}{\text{mg}}}{EF_r \cdot ED_{tot} \cdot IRA_a}$$

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## 4. Fish (mg/kg):

a. Carcinogens: Calculations were based on adult exposure.

$$\frac{TR \cdot BWa \cdot ATc}{EFr \cdot EDtot \cdot \frac{IRF}{1000 \frac{g}{kg}} \cdot CPSo}$$

b. Non-carcinogens: Calculations were based on adult exposure.

$$\frac{THQ \cdot RfDo \cdot BWa \cdot ATn}{EFr \cdot EDtot \cdot \frac{IRF}{1000 \frac{g}{kg}}}$$

5. Soil commercial/industrial (mg/kg): The default exposure assumption that only 50% of incidental soil ingestion occurs at work has been omitted. Calculations were based on adult occupational exposure.

a. Carcinogens:

$$\frac{TR \cdot BWa \cdot ATc}{EFo \cdot EDo \cdot \frac{IRSa}{10^6 \frac{mg}{kg}} \cdot CPSo}$$

b. Non-carcinogens:

$$\frac{THQ \cdot RfDo \cdot BWa \cdot ATn}{EFo \cdot EDo \cdot \frac{IRSa}{10^6 \frac{mg}{kg}}}$$

## 6. Soil residential (mg/kg):

a. Carcinogens: Calculations were based on combined childhood and adult exposure.

$$\frac{TR \cdot ATc}{EFr \cdot \frac{IFSadj}{10^6 \frac{mg}{kg}} \cdot CPSo}$$

b. Non-carcinogens: Calculations were based on childhood exposure only.

$$\frac{THQ \cdot RfDo \cdot BWc \cdot ATn}{EFr \cdot EDc \cdot \frac{IRSc}{10^6 \frac{mg}{kg}}}$$

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Sources: *i*=IRIS *h*=HEAST *a*=HEAST alt. *w*=Withdrawn from IRIS or HEAST *e*=EPA-ECACO provisional *o*=Other EPA documentsBasis of RBC: *c*=carcinogenic effects *n*=noncarcinogenic effects.

Contaminant	CAS	RDo	RDH	mg/kg/d	mg/g/d	8.70E-03 <i>i</i>	8.70E-03 <i>i</i>	7.70E-03 <i>i</i>	7.70E-03 <i>i</i>	CPSg	kg/d/mg	V	D	Trip water	Ambient air	Fish	Industrial soil	Residential soil	mg/kg			
<b>Acophate</b>	30560191	4.00E-03 <i>i</i>											7.7	c	0.72	c	0.36	c	330	c	73	c
<b>Acetaldehyde</b>	75070		2.57E-03 <i>i</i>										94	n	0.81	c						
<b>Acetochlor</b>	34236821	2.00E-02 <i>i</i>											730	n	73	n	27	n	20000	n	1600	n
<b>Acetone</b>	67641	1.00E-01 <i>i</i>											3700	n	370	n	140	n	100000	n	7800	n
<b>Acetone cyanohydrin</b>	75865	7.00E-02 <i>h</i>		2.86E-03 <i>a</i>									2600	n	10	n	95	n	72000	n	5500	n
<b>Acetonitrile</b>	75078	6.00E-03 <i>i</i>	1.43E-02 <i>a</i>										220	n	52	n	8.1	n	6100	n	470	n
<b>Acetophenone</b>	98862	1.00E-01 <i>i</i>	5.71E-06 <i>w</i>										0.042	n	0.021	n	140	n	100000	n	7800	n
<b>Acifluorfen</b>	62476599	1.30E-02 <i>i</i>											470	n	47	n	18	n	13000	n	1000	n
<b>Acrolein</b>	107028	2.00E-02 <i>h</i>	5.71E-06 <i>i</i>										730	n	0.021	n	27	n	20000	n	1600	n
<b>Acrylamide</b>	79061	2.00E-04 <i>i</i>		4.59E+00 <i>i</i>		4.55E+00 <i>i</i>		0.015	c	0.0014	c		18000	n	3.7	n	680	n	510000	n	39000	n
<b>Acrylic acid</b>	79107	5.00E-01 <i>i</i>	1.00E-03 <i>i</i>										0.12	c	0.026	c	0.0058	c	5.3	c	1.2	c
<b>Acrylonitrile</b>	107131	1.00E-03 <i>h</i>	5.71E-04 <i>i</i>	5.40E-01 <i>i</i>		2.38E-01 <i>i</i>							0.84	c	0.078	c	0.039	c	36	c	8	c
<b>Alachlor</b>	15972608	1.00E-02 <i>i</i>		8.00E-02 <i>h</i>									37	n	3.7	n	1.4	n	1000	n	12000	n
<b>Alar</b>	1596845	1.50E-01 <i>i</i>											5500	n	550	n	200	n	150000	n	12000	n
<b>Aldicarb sulfone</b>	1646884	1.00E-03 <i>i</i>				1.70E+01 <i>i</i>	1.71E+01 <i>i</i>	0.004	c	0.00037	c		0.00019	c	0.00019	c	0.17	c	0.038	c	0.038	c
<b>Aldrin</b>	309902	3.00E-05 <i>i</i>											9100	n	910	n	340	n	266000	n	20000	n
<b>Allyl</b>	74223646	2.50E-01 <i>i</i>											180	n	18	n	6.8	n	5100	n	390	n
<b>Allyl alcohol</b>	107186	5.00E-03 <i>i</i>											1800	n	1	n	68	n	51000	n	3900	n
<b>Allyl chloride</b>	107051	5.00E-02 <i>w</i>		2.86E-04 <i>i</i>									37000	n	3700	n	1480	n	1000000	n	78000	n
<b>Aluminum</b>	74129205	1.00E+00 <i>a</i>											15	n	1.5	n	0.54	n	410	n	31	n
<b>Aluminum phosphide</b>	20839738	4.00E-04 <i>i</i>											11	n	1.1	n	0.41	n	310	n	23	n
<b>Amidro</b>	67485294	3.00E-04 <i>i</i>											330	n	33	n	12	n	9200	n	700	n
<b>Ametryn</b>	834128	9.00E-03 <i>i</i>																				
<b>m-Aminophenol</b>	591275	7.00E-02 <i>h</i>											2600	n	260	n	95	n	72000	n	5500	n
<b>4-Aminopyridine</b>	564245	2.00E-05 <i>h</i>											0.73	n	0.073	n	0.027	n	20	n	1.6	n
<b>Amitraz</b>	33039611	2.50E-03 <i>i</i>											91	n	9.1	n	3.4	n	2600	n	200	n
<b>Ammonia</b>	7664417		2.86E-02 <i>i</i>										1000	n	100	n						
<b>Ammonium sulfonate</b>	7773050	2.00E-01 <i>i</i>											7300	n	730	n	270	n	200000	n	16000	n
<b>Aniline</b>	62533		2.86E-04 <i>i</i>	5.70E-03 <i>i</i>									10	n	1	n	0.55	c	500	c	110	c
<b>Antimony and compounds</b>	7440360	4.00E-04 <i>i</i>											15	n	1.5	n	0.54	n	410	n	31	n
<b>Antimony pentoxide</b>	1314609	5.00E-04 <i>h</i>											18	n	1.8	n	0.68	n	510	n	39	n
<b>Antimony potassium tartrate</b>	304610	9.00E-04 <i>h</i>											33	n	3.3	n	1.2	n	920	n	70	n
<b>Antimony tetroxide</b>	1332316	4.00E-04 <i>h</i>											15	n	1.5	n	0.54	n	410	n	31	n
<b>Antimony trioxide</b>	1309644	4.00E-04 <i>h</i>											15	n	1.5	n	0.54	n	410	n	31	n
<b>Apollo</b>	74115245	1.30E-02 <i>i</i>											470	n	47	n	18	n	13000	n	1000	n
<b>Aramite</b>	140578	5.00E-02 <i>h</i>											2.7	c	0.25	c	0.13	c	110	c	26	c
<b>Arsenic</b>	7440382	3.00E-04 <i>i</i>											11	n	1.1	n	0.41	n	310	n	23	n
<b>Arsenic (as carcinogen)</b>	7440382		1.75E+00 <i>i</i>										0.038	c	0.00041	c	0.0018	c	1.6	c	0.37	c
<b>Arsine</b>	7784421		1.43E-05 <i>i</i>										330	n	33	n	12	n	9200	n	700	n
<b>Assure</b>	76578148	9.00E-03 <i>i</i>											1800	n	180	n	68	n	51000	n	3900	n
<b>Asulam</b>	3337711	5.00E-02 <i>i</i>																				

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Source: i=IRIS h=HEAST a=HEAST alt. w=Widderham from IRIS or HEAST c=Other EPA documents, n=noncarcinogenic effects

Contaminant	CAS	RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg/d/mg	CPSi kg/d/mg	V 0	Basis of RBC: c=carcinogenic effects n=noncarcinogenic effects			Industrial sol mg/kg sol	Residential soil mg/kg
							1 up water	air	fish		
Atrazine	1912249	3.50E-02 /	2.22E-01 h	0.3 c	0.028 c	0.014 c	13 c	2.9 c			
Avermectin B1	63195553	4.00E-04 /		15 n	1.5 n	0.54 n	410 n	31 n			
Azobenzene	103333			1.10E-01 /	1.08E-01 /	0.61 c	0.058 c	0.029 c	26 c	5.8 c	
Barium and compounds	7440393	7.00E-02 /	1.43E-04 a		2600 n	0.52 n	95 n	72000 n	5500 n		
Baygon	114261	4.00E-03 /			150 n	15 n	5.4 n	4100 n	310 n		
Bayleton	43121433	3.00E-02 /			1100 n	110 n	41 n	31000 n	2300 n		
Baythroid	68359375	2.50E-02 /			910 n	91 n	34 n	26000 n	2000 n		
Benefin	1861401	3.00E-01 /			11000 n	1100 n	410 n	310000 n	23000 n		
Benomyl	17804352	5.00E-02 /			1800 n	180 n	68 n	51000 n	3900 n		
Bentazon	25057890	2.50E-03 /			91 n	9.1 n	3.4 n	2600 n	200 n		
Benzaldehyde	100527	1.00E-01 /	1.71E-03 e	2.90E-02 /	2.90E-02 /	***	610 n	370 n	140 n	100000 n	7800 n
Benzene	71432				0.36 c	0.22 c	0.11 c	99 c	22 c		
Benzethanol	108985	1.00E-05 h		2.30E+02 /	2.35E+02 /	0.00029 c	0.000027 c	0.000014 c	0.012 c	0.0028 c	
Benzidine	92875	3.00E-03 /			150000 n	15000 n	5400 n	1000000 n	310000 n		
Benzoic acid	65850	4.00E-00 /			0.0052 c	0.00048 c	0.00024 c	0.22 c	0.049 c		
Benzotrichloride	98077			1.30E+01 /	1.70E-01 /	0.062 c	0.037 c	0.019 c	17 c	3.8 c	
Benzyl alcohol	100516	3.00E-01 h			11000 n	1100 n	410 n	310000 n	23000 n		
Benzyl chloride	100447	5.00E-03 /	4.30E+00 /	8.40E+00 /	8.40E+00 /	0.016 c	0.00075 c	0.000073 c	0.67 c	0.15 c	
Beryllium and compounds	7440417	1.00E-04 /			3.7 n	0.37 n	0.14 n	100 n	7.8 n		
Bidrin	141662				550 n	55 n	20 n	15000 n	1200 n		
Biphenothrin (Talstar)	82657043	1.50E-02 /									
1,1-Biphenyl	92524	5.00E-02 /			1800 n	180 n	68 n	51000 n	3900 n		
Bis(2-chloroisopropyl)ether	39638329	4.00E-02 /		7.00E-02 h	3.50E-02 h	0.26 c	0.18 c	0.045 c	41 c	9.1 c	
Bis(chloromethyl)ether	542881			2.20E+02 /	2.17E+02 /	0.000049 c	0.000029 c	0.000014 c	0.013 c	0.0029 c	
Bis(2-chloro-1-methylethyl)ether	117817	2.00E-02 /		7.00E-02 w	7.00E-02 w	0.96 c	0.089 c	0.045 c	41 c	9.1 c	
Bis(2-ethylhexyl)phthalate (DEHP)	111444			1.40E-02 /	1.40E-02 /	4.8 c	0.45 c	0.23 c	200 c	46 c	
Bis(chloroethyl)ether	89057	5.00E-02 /		1.10E+00 /	1.16E+00 /	0.0092 c	0.0054 c	0.0029 c	2.6 c	0.58 c	
Bisphenol A	7440428	9.00E-02 /	5.71E-03 h			1800 n	180 n	68 n	51000 n	3900 n	
Boron (and borates)	7637072	2.00E-04 h			3300 n	21 n	120 n	920000 n	7000 n		
Boron trifluoride					7.3 n	0.73 n					
Bromodichloromethane	73274	2.00E-02 /		6.20E-02 /	***	0.17 c	0.1 c	0.051 c	46 c	10 c	
Bromoform (tribromomethane)	593602			1.10E-01 h	1.10E-01 h	0.096 c	0.057 c				
Bromomethane	73252	2.00E-02 /		7.90E-03 /	3.85E-03 /	2.4 c	1.6 c	0.4 c	360 c	81 c	
4-Bromophenyl phenyl ether	74839	1.40E-03 /	1.43E-03 /		***	8.7 n	5.2 n	1.9 n	1400 n	110 n	
Bromopropes	101553	5.80E-02 o				2100 n	210 n	78 n	59000 n	4500 n	
Bromoxynil	1689445	2.00E-02 /				180 n	18 n	6.8 n	5100 n	390 n	
Bromoxynil octanoate	1689992	2.00E-02 /				730 n	73 n	27 n	20000 n	-1600 n	
1,3-Butadiene	106590			9.80E-01 /	***	0.011 c	0.0064 c				
1-Butanol	71363	1.00E-01 /				3700 n	370 n	140 n	100000 n	7800 n	
Butyl benzyl phthalate	85687	2.00E-01 /				7300 n	730 n	270 n	200000 n	16000 n	
Butylate	2008415	5.00E-02 /				1800 n	180 n	68 n	51000 n	3900 n	

Sources: i=IRS k=HEAST a=HEAST alt. w=Withdrawn from IRS or HEAST • =EPA-ECIO provisional o=Other EPA document

Contaminant	CAS	R1Do mg/kg/d	RDI mg/kg/d	CFSo kg/d/mg	CFSI kg/d/mg	V µg/l	Tap water µg/m <sup>3</sup>	Ambient air µg/m <sup>3</sup>	Fish mg/kg	Industrial soil mg/kg	Residential soil mg/kg
sec-Butylbenzene	135988	1.00E+02 *				***	61 n	37 n	14 n	10000 n	780 n
tert-Butylbenzene	104518	1.00E+02 *				***	61 n	37 n	14 n	10000 n	780 n
Butylphthalyl butylglycolate	85701	1.00E+00 /					37000 n	3700 n	1400 n	1000000 n	78000 n
Cadmium and compounds	75605	3.00E+03 h					110 n	11 n	4.1 n	3100 n	230 n
Caprolactam	744039	5.00E+04 /				6.30E+00 /	18000 n	1800 n	0.00099 c	0.68 n	510 n
Captisol	105602	5.00E+01 /					18 n	0.00099 c	0.37 c	330 c	74 c
Caption	2425061	2.00E+03 /				8.60E-03 h	7.8 c	0.73 c	0.37 c	330 c	74 c
Carbaryl	133062	1.30E+01 /				3.50E-03 h	19 c	1.8 c	0.9 c	820 c	180 c
Carbazole	63252	1.00E+01 /					3700 n	370 n	140 n	100000 n	7800 n
Carbofuran	86748					2.00E+02 h	3.4 c	0.31 c	0.16 c	140 c	32 c
Carbon disulfide	1563662	5.00E+03 /				2.86E+03 h	180 n	18 n	6.8 n	5100 n	390 n
Carbon tetrachloride	75150	1.00E+01 /				5.71E+04 *	1.30E+01 /	5.25E+02 / ***	0.16 c	0.12 c	0.024 c
Carbosulfan	56235	7.00E+04 /				4.03E+01 h	370 n	37 n	14 n	10000 n	7800 n
Carboxin	53285148	1.00E+02 /					3700 n	370 n	140 n	100000 n	7800 n
Chloral	5234684	1.00E+01 /						73 n	7.3 n	2.7 n	2000 n
Chloramben	75876	2.00E+03 /					550 n	55 n	20 n	15000 n	1200 n
Chloranil	133904	1.50E+02 /					0.17 c	0.016 c	0.0078 c	7.1 c	1.6 c
Chlordane	118752					4.03E+01 h			0.052 c	0.0049 c	0.0024 c
Chlorimuron-ethyl	57749	6.00E+03 /				1.30E+00 /	1.29E+00 /	1.30E+00 /	1.5 n	2.2 c	0.49 c
Chlorine	90982224	2.00E+02 /					730 n	73 n	27 n	20000 n	1600 n
	7782505	1.00E+01 /					3700 n	370 n	140 n	100000 n	7800 n
Chlorine dioxide	10049044					5.71E+05 /			2.1 n	0.21 n	
Chloroacetaldehyde	107200	6.90E+03 *					250 n	25 n	9.3 n	7100 n	540 n
Chloroacetic acid	79118	2.00E+03 h					73 n	7.3 n	2.7 n	2000 n	160 n
2-Chloroacetophenone	532274					8.57E+06 /			0.31 n	0.031 n	
4-Chloroaniline	106478	4.00E+03 /				5.71E+03 *	***		1.50 n	1.5 n	5.4 n
Chlorobenzene	108907	2.00E+02 /					39 n	21 n	27 n	20000 n	1600 n
Chlorobenzilate	510156	2.00E+02 /				2.70E+01 h	0.25 c	0.023 c	0.012 c	11 c	2.4 c
p-Chlorobenzoic acid	74113	2.00E+01 h					7300 n	730 n	270 n	200000 n	16000 n
4-Chlorobenzotrifluoride	98566	2.00E+02 h					730 n	73 n	27 n	20000 n	1600 n
2-Chloro-1,3-butadiene	126998	2.00E+02 *				2.00E+03 h	***	14 n	7.3 n	27 n	20000 n
1-Chlorobutane	109693	4.00E+01 h					2400 n	1500 n	540 n	410000 n	31000 n
Chlorodifluoromethane	75456					1.42E+01 /			0.011 c	0.0054 c	4.9 c
Chloroethane	75093	4.00E+01 *				2.86E+00 /	***		8600 n	10000 n	540 n
2-Chloroethyl vinyl ether	110758	2.50E+02 *					150 n	91 n	34 n	26000 n	2000 n
Chloroform	67663	1.00E+02 /				6.10E+03 /	8.05E+02 / ***	0.15 c	0.078 c	0.52 c	470 c
Chloromethane	74873					1.30E+02 h	6.30E+03 h ***		1.4 c	0.99 c	0.24 c
4-Chloro-2,2-methylaniline hydrochloride	3165933					4.60E+01 h	0.15 c	0.014 c	0.0069 c	6.2 c	1.4 c
4-Chloro-2-methylaniline	95692					5.80E+01 h	0.12 c	0.011 c	0.0054 c	4.9 c	1.1 c
beta-Chloronaphthalene	91587	8.00E+02 /					2900 n	290 n	110 n	82000 n	6300 n
o-Chloronitrobenzene	88733					2.50E+02 h	0.42 c	0.25 c	0.13 c	110 c	26 c
o-Chloronitrobenzene	100605					1.80E+02 h	0.59 c	0.35 c	0.18 c	160 c	35 c

Sources: *i*=IRIS *k*=HEAST *a*=HEAST alt. *w*=HEAST alt. *w*=Withdrawn from IRIS or HEAST *c*=EPA/ECACO provisional *o*=Other EPA documentsBasis of RBC: *c*=carcinogenic effects *n*=noncarcinogenic effects

Contaminant	CAS	RfD <sup>a</sup> mg/kg/d	RfD <sup>a</sup> mg/kg/d	CRF <sup>b</sup> kg/m <sup>3</sup>	CRF <sup>b</sup> kg/m <sup>3</sup>	VOC <sup>c</sup> mg/m <sup>3</sup>	Ambient air mg/m <sup>3</sup>	Fish mg/kg	Industrial soil mg/kg	Residential soil mg/kg
2-Chlorophenol	93578	5.00E-03 <i>i</i>	2.85E-02 <i>h</i>			***	180 <i>n</i>	18 <i>n</i>	5100 <i>n</i>	390 <i>n</i>
2-Chloropropane	75296	1.50E-02 <i>i</i>	1.10E-02 <i>h</i>			***	170 <i>n</i>	100 <i>n</i>	260 <i>c</i>	58 <i>c</i>
Chlorobutanol	1897456									
o-Chlorotoluene	95498	2.00E-02 <i>i</i>				***	120 <i>n</i>	73 <i>n</i>	27 <i>n</i>	26000 <i>n</i>
Chlorophorm	101213	2.00E-01 <i>i</i>					7300 <i>n</i>	730 <i>n</i>	270 <i>n</i>	200000 <i>n</i>
Chlorpyrifos	2921882	3.00E-03 <i>i</i>					110 <i>n</i>	11 <i>n</i>	4.1 <i>n</i>	3100 <i>n</i>
Chlorpyrifos-methyl	5598130	1.00E-02 <i>n</i>					370 <i>n</i>	37 <i>n</i>	14 <i>n</i>	10000 <i>n</i>
Chlorsulfuron	64902723	5.00E-02 <i>i</i>					1800 <i>n</i>	180 <i>n</i>	68 <i>n</i>	51000 <i>n</i>
Chlorthiophos	60238364	8.00E-04 <i>n</i>					29 <i>n</i>	2.9 <i>n</i>	1.1 <i>n</i>	820 <i>n</i>
Chromium III and compounds	160655831	1.00E+00 <i>i</i>	5.71E-07 <i>w</i>				37000 <i>n</i>	0.0021 <i>n</i>	1400 <i>n</i>	1000000 <i>n</i>
Chromium VI and compounds	7440473	5.00E-03 <i>i</i>	4.20E-01 <i>i</i>				180 <i>n</i>	0.00015 <i>c</i>	6.8 <i>n</i>	5100 <i>n</i>
Coal tar	8001589		2.20E-00 <i>w</i>					0.0028 <i>c</i>		
Cobalt	7440484	6.00E-02 <i>o</i>					2200 <i>n</i>	220 <i>n</i>	81 <i>n</i>	61000 <i>n</i>
Coke Oven Emissions	8007452		2.17E+00 <i>i</i>					0.0029 <i>c</i>		
Copper and compounds	7440508	3.71E-02 <i>n</i>					1400 <i>n</i>	140 <i>n</i>	50 <i>n</i>	38000 <i>n</i>
Crotonaldehyde	123739	1.00E-02 <i>w</i>	1.90E+00 <i>h</i>			0.035 <i>c</i>	0.0033 <i>c</i>	0.0017 <i>c</i>	1.5 <i>c</i>	0.34 <i>c</i>
Cumene	98828	4.00E-02 <i>i</i>	2.57E-03 <i>h</i>			1500 <i>n</i>	9.4 <i>n</i>	54 <i>n</i>	41000 <i>n</i>	3100 <i>n</i>
Cyanides:										
Barium cyanide	542621	1.00E-01 <i>w</i>					3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>
Calcium cyanide	592018	4.00E-02 <i>i</i>					1500 <i>n</i>	150 <i>n</i>	54 <i>n</i>	41000 <i>n</i>
Copper cyanide	544923	5.00E-03 <i>i</i>					180 <i>n</i>	18 <i>n</i>	6.8 <i>n</i>	5100 <i>n</i>
Cyanazine	21725462	2.00E-03 <i>n</i>	6.40E-01 <i>h</i>			0.08 <i>c</i>	0.0075 <i>c</i>	0.0038 <i>c</i>	3.4 <i>c</i>	0.76 <i>c</i>
Cyanogen	460195	4.00E-02 <i>i</i>					1500 <i>n</i>	150 <i>n</i>	54 <i>n</i>	41000 <i>n</i>
Cyanogen bromide	506683	9.00E-02 <i>i</i>					3300 <i>n</i>	330 <i>n</i>	120 <i>n</i>	920000 <i>n</i>
Cyanogen chloride	506774	5.00E-02 <i>i</i>					1800 <i>n</i>	180 <i>n</i>	68 <i>n</i>	51000 <i>n</i>
Free cyanide	57125	2.00E-02 <i>i</i>					730 <i>n</i>	73 <i>n</i>	27 <i>n</i>	200000 <i>n</i>
Hydrogen cyanide	74908	2.00E-02 <i>i</i>	2.57E-04 <i>i</i>				730 <i>n</i>	3.1 <i>n</i>	27 <i>n</i>	200000 <i>n</i>
Potassium cyanide	151508	5.00E-02 <i>i</i>					1800 <i>n</i>	180 <i>n</i>	68 <i>n</i>	51000 <i>n</i>
Potassium silver cyanide	506616	2.00E-01 <i>i</i>					7300 <i>n</i>	730 <i>n</i>	270 <i>n</i>	200000 <i>n</i>
Silver cyanide	506649	1.00E-01 <i>i</i>					3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>
Sodium cyanide	143339	4.00E-02 <i>i</i>					1500 <i>n</i>	150 <i>n</i>	54 <i>n</i>	41000 <i>n</i>
Zinc cyanide	557211	5.00E-02 <i>i</i>					1800 <i>n</i>	180 <i>n</i>	68 <i>n</i>	51000 <i>n</i>
Cyclohexanone	108941	5.00E-00 <i>i</i>				***	30000 <i>n</i>	18000 <i>n</i>	6800 <i>n</i>	1000000 <i>n</i>
Cyromazine	108918	2.00E-01 <i>i</i>					7300 <i>n</i>	730 <i>n</i>	270 <i>n</i>	2000000 <i>n</i>
Cyclohexamine	68085858	5.00E-03 <i>i</i>					180 <i>n</i>	18 <i>n</i>	6.8 <i>n</i>	5100 <i>n</i>
Cyhalothrin/Karate	52315078	1.00E-02 <i>i</i>					370 <i>n</i>	37 <i>n</i>	14 <i>n</i>	10000 <i>n</i>
Cypermethrin	66215278	7.50E-03 <i>i</i>					270 <i>n</i>	27 <i>n</i>	10 <i>n</i>	7700 <i>n</i>
Dacthal	1861321	1.00E-02 <i>i</i>					310 <i>n</i>	31 <i>n</i>	14 <i>n</i>	10000 <i>n</i>
Dalapon	75990	3.00E-02 <i>i</i>					1100 <i>n</i>	110 <i>n</i>	41 <i>n</i>	31000 <i>n</i>
Danitol	39515418	2.50E-02 <i>i</i>					210 <i>n</i>	21 <i>n</i>	34 <i>n</i>	26000 <i>n</i>
DDD	72548	2.40E-01 <i>i</i>					0.28 <i>c</i>	0.026 <i>c</i>	0.013 <i>c</i>	12 <i>c</i>
DDE	72559	3.40E-01 <i>i</i>					0.2 <i>c</i>	0.018 <i>c</i>	0.0093 <i>c</i>	8.4 <i>c</i>

Sources: i=IRIS h=HEAST a=HEAST alt. w=Withdrawn from IRIS or HEAST e=EP-AEC/AO provisional o=Other EPA documents

Basis of RBC: c=carcinogenic effects n=noncarcinogenic effects

Contaminant	RFDo	RfD <sub>h</sub>	CPS <sub>o</sub>	CPS <sub>n</sub>	Ambient air	Fish	Industrial soil	Residential soil
	mg/kg/d	mg/kg/d	kg/d/ug	kg/d/ug	ug/m <sup>3</sup>	ug/kg	mg/kg	mg/kg
DDT	5.00E-04 /	3.40E-01 /	3.40E-01 /	0.2 c	0.018 c	0.0093 c	8.4 c	1.9 c
Decabromodiphenyl ether	1.00E-02 /			***	61 n	37 n	14 n	10000 n
Demetone	4.00E-05 /				1.5 n	0.15 n	0.054 n	41 n
Diallate	2303164	9.00E-04 h	6.10E-02 h	***	0.17 c	0.1 c	0.052 c	47 c
Diazinon	333415	9.00E-04 h	8.40E-02 /	***	33 n	3.3 n	1.2 n	920 n
Dibenzofuran	132649	4.00E-03 a	5.71E-05 /	2.42E-03 h***	0.048 c	0.21 n	0.0023 c	2 c
1,4-Dibromobenzene	106376	1.00E-02 /	8.40E-02 /	***	61 n	37 n	14 n	10000 n
Dibromoformmethane	124481	2.00E-02 /	1.40E-00 h	***	0.13 c	0.075 c	0.038 c	34 c
1,2-Dibromo-3-chloropropane	96128				1100 n	110 n	41 n	70 n
1,2-Dibromoethane	106934	5.71E-05 h	8.50E-01 /	7.70E-01 / ***	0.0075 c	0.0081 c	0.00037 c	0.034 c
Dimethyl phthalate	84742	1.00E-01 /			3700 n	370 n	140 n	100000 n
Dicamba	1918009	3.00E-02 /			1100 n	110 n	41 n	31000 n
1,2-Dichlorobenzene	95501	9.00E-02 /	5.71E-02 a	***	370 n	210 n	120 n	92000 n
1,3-Dichlorobenzene	541731	8.90E-02 o	2.29E-01 /	2.40E-02 h	540 n	320 n	120 n	91000 n
1,4-Dichlorobenzene	106467				0.44 c	0.26 c	0.13 c	120 c
3,3'-Dichlorobenzidine	91941				0.15 c	0.014 c	0.007 c	6.4 c
1,4-Dichloro-2-butene	764410				0.0011 c	0.00067 c		1.4 c
Dichlorodifluoromethane	75718	2.00E-01 /	5.71E-02 a	***	390 n	210 n	270 n	200000 n
1,1-Dichloroethane	75343	1.00E-01 h	1.43E-01 a	***	810 n	520 n	140 n	100000 n
1,2-Dichloroethane (EDC)	107062		2.86E-03 o	9.10E-02 /	0.12 c	0.069 c	0.035 c	31 c
1,1-Dichloroethylene	75354	9.00E-03 /	6.00E-01 /	1.75E-01 / ***	0.044 c	0.036 c	0.0053 c	4.8 c
1,2-Dichloroethylene (cis)	156592	1.00E-02 h			61 n	37 n	14 n	10000 n
1,2-Dichloroethylene (trans)	156605	2.00E-02 /			120 n	73 n	27 n	20000 n
1,2-Dichloroethylene (mixture)	540590	9.00E-03 h			55 n	33 n	12 n	9200 n
2,4-Dichlorophenol	120832	3.00E-03 /			110 n	11 n	4.1 n	3100 n
2,4-Dichlorophenoxyacetic Acid (2,4-D)	94757	1.00E-02 /			61 n	37 n	14 n	10000 n
4-(2,4-Dichlorophenoxy)butyric Acid	94826	8.00E-03 /			290 n	29 n	11 n	8200 n
1,2-Dichloropropane	78875	1.14E-03 /	6.80E-02 h	***	0.16 c	0.092 c	0.046 c	42 c
2,3-Dichloropropanol	616239	3.00E-03 /			110 n	11 n	4.1 n	3100 n
1,3-Dichloropropene	542756	3.00E-04 /	5.71E-03 /	1.75E-01 h ***	0.077 c	0.048 c	0.018 c	16 c
Dichlorvos	62737	5.00E-04 /	1.43E-04 /	2.90E-01 /	0.23 c	0.022 c	0.011 c	9.9 c
Dicofol	115322			4.40E-01 w	0.15 c	0.014 c	0.0072 c	6.5 c
Dicyclopenadiene	77736	3.00E-02 h	5.71E-05 a	4.40E-01 w	0.42 n	0.21 n	41 n	31000 n
Dieldrin	60571	5.00E-05 /	1.60E+01 /	1.61E+01 /	0.0042 c	0.00039 c	0.0002 c	0.18 c
Diesel emissions			1.43E-03 /		52 n	5.2 n		63000 n
Diethyl phthalate	84662	8.00E-01 /			29000 n	2900 n	1100 n	820000 n
Diethylene glycol, monobutyl ether	112345		5.71E-03 h		210 n	21 n		63000 n
Diethylene glycol, monoethyl ether	111900	2.00E+00 h			73000 n	7300 n	2700 n	1000000 n
Diethylforamide	617845	1.10E-02 h			400 n	40 n	15 n	11000 n
Di(2-ethylhexyl)adipate	103231	6.00E-01 /	1.20E-03 /	1.30E-06 c	56 c	5.2 c	2.6 c	2400 c
Diethylstilbestrol	56531		4.70E-03 h	4.70E-07 c	0.00014 c	0.00061 c	0.00014 c	530 c
Difenzoquat (Avenge)	43222486	8.00E-02 /			2900 n	290 n	110 n	82000 n

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Basis of RBC: c=carcinogenic effects n=noncarcinogenic effects

Contaminant	CAS	RfDo	RfD	CfDo	CPSI	VOC	Ambient air	Fish	Industrial soil	Residential soil
		mg/kg/d	mg/kg/d	kg/mg	kg/mg	ppm	ppb/m <sup>3</sup>	ppb/kg	mg/kg	mg/kg
Difluorobenzuron	35367385	2.00E-02 /				730 n	73 n	27 n	20000 n	1600 n
1,1-Difluoroethane	75176		1.14E+01 /			62000 n	42000 n			
Disopropyl methylphosphonate (DIMP)	1445756	8.00E-02 /				2900 n	290 n	110 n	82000 n	6300 n
Dimethylipin	55290647	2.00E-02 /				730 n	73 n	27 n	20000 n	1600 n
Dimethoate	60515	2.00E-04 /				7.3 n	0.73 n	0.27 n	200 n	16 n
3,3'-Dimethoxybenzidine	119904		1.40E-02 h			4.8 c	0.45 c	0.23 c	200 c	46 c
Dimethyl phthalate	131113	1.00E+01 h				370000 n	37000 n	14000 n	1000000 n	780000 n
Dimethyl terephthalate	120616	1.00E+01 /				3700 n	370 n	140 n	100000 n	78000 n
Dimethylamine	124403		5.71E-06 w			0.21 n	0.021 n			
2,4-Dimethylaniline hydrochloride	21436964			5.80E-01 h		0.12 c	0.011 c	0.0054 c	4.9 c	1.1 c
2,4-Dimethylaniline	95681		7.50E-01 h			0.09 c	0.0083 c	0.0042 c	3.8 c	0.85 c
N,N-Dimethylaniline	121657	2.00E-03 /				73 n	7.3 n	2.7 n	2000 n	160 n
3,3'-Dimethylbenzidine	119937		1.00E+01 h	8.57E-03 /	9.20E+00 h	0.0073 c	0.000658 c	0.00034 c	0.31 c	0.069 c
N,N-Dimethylformamide	68122		3.70E+01 w	2.60E+00 w	3.50E+00 w	0.026 c	0.0018 c	0.0012 c	100000 n	7800 n
1,1-Dimethylhydrazine	57147		2.00E-02 /			3700 n	31 n	140 n	100000 n	7800 n
1,2-Dimethylhydrazine	105679	2.00E-02 /				730 n	73 n	27 n	20000 n	1600 n
2,4-Dimethylphenol	576261	6.00E-04 /				22 n	2.2 n	0.81 n	610 n	47 n
2,6-Dimethylphenol	95658	1.00E-03 /				37 n	3.7 n	1.4 n	1000 n	78 n
3,4-Dimethylphenol	528290	4.00E-04 h				15 n	1.5 n	0.54 n	410 n	31 n
1,2-Dinitrobenzene	99650	1.00E-04 /				3.7 n	0.37 n	0.14 n	100 n	7.8 n
1,3-Dinitrobenzene						15 n	1.5 n	0.54 n	410 n	31 n
1,4-Dinitrobenzene	100254	4.00E-04 h				73 n	7.3 n	2.7 n	2000 n	160 n
4,6-Dinitro-o-cyclohexyl phenol	131825	2.00E-03 /				73 n	7.3 n	2.7 n	2000 n	160 n
2,4-Dinitrophenol	51285	2.00E-03 /				37 n	3.7 n	1.4 n	1000 n	78 n
Dinitrotoluene mixture				6.80E-01 /		0.099 c	0.0092 c	0.0046 c	4.2 c	0.94 c
2,4-Dinitrotoluene	121142	2.00E-03 /				73 n	7.3 n	2.7 n	2000 n	160 n
2,6-Dinitrotoluene	606202	1.00E-03 h				37 n	3.7 n	1.4 n	1000 n	78 n
Dinosob	88857	1.00E-03 /				730 n	73 n	27 n	20000 n	16000 n
di-n-Octyl phthalate	117840	2.00E-02 h		1.10E-02 /		6.1 c	0.57 c	0.29 c	260 c	58 c
1,4-Dioxane	957517	3.00E-02 /				1100 n	110 n	41 n	31000 n	23000 n
Diphenamid	122394	2.50E-02 /				910 n	91 n	34 n	26000 n	20000 n
1,2-Diphenylhydrazine	122667		8.00E-01 /	7.70E-01 /		0.084 c	0.0081 c	0.0039 c	3.6 c	0.8 c
Diquat	85007	2.20E-03 /				80 n	8 n	3 n	2200 n	170 n
Direct black 38	1937377		4.60E+00 h			0.0078 c	0.00073 c	0.00037 c	0.33 c	0.074 c
Direct blue 6	2602462		8.10E+00 h			0.0083 c	0.00077 c	0.00039 c	0.35 c	0.079 c
Direct brown 95	16071866		9.30E+00 h			0.0072 c	0.00067 c	0.00034 c	0.31 c	0.069 c
Disulfoton	298044	4.00E-05 /				1.5 n	0.15 n	0.054 n	41 n	3.1 n
1,4-Dithiane	505293	1.00E-02 /				370 n	37 n	14 n	10000 n	7800 n
Diuron	330541	2.00E-03 /				73 n	7.3 n	2.7 n	2000 n	160 n
Dodine	2439103	4.00E-03 /				150 n	15 n	5.4 n	4100 n	310 n
Endosulfan	115297	6.00E-03 /				220 n	22 n	8.1 n	6100 n	470 n

Source: *i=IRIS h=HEAST a=HEAST alt. w=Withdrawn from IRIS or HEAST e=EPAC/ECAC provisional o=Other EPA documents*

Basis of RBC: c=carcinogenic effects n=noncarcinogenic effects

Contaminant	CAS	RfDo mg/kg/d	RfD mg/kg/d	CPSo kg/d/mg	CPSI kg/d/mg	V ng/L	Tap water ng/L	Ambient air ng/m <sup>3</sup>	Fish mg/kg	Industrial soil mg/kg	Residential soil mg/kg
Endothall	145733	2.00E-02 <i>l</i>	3.00E-04 <i>l</i>			730 <i>n</i>	73 <i>n</i>	27 <i>n</i>	20000 <i>n</i>	1600 <i>n</i>	
Endrin	72208	2.00E-04 <i>l</i>	2.00E-03 <i>h</i>	2.86E-04 <i>l</i>	9.90E-03 <i>l</i>	11 <i>n</i>	1.1 <i>n</i>	0.41 <i>n</i>	310 <i>n</i>	23 <i>n</i>	
Epichlorohydrin	106898	2.00E-03 <i>h</i>				6.8 <i>c</i>	1 <i>n</i>	0.32 <i>c</i>	290 <i>c</i>	65 <i>c</i>	
1,2-Epoxybutane	106887		5.71E-03 <i>l</i>			210 <i>n</i>	21 <i>n</i>				
Ethepron (2-chloroethyl phosphonic acid)	16672870	5.00E-03 <i>l</i>				180 <i>n</i>	18 <i>n</i>	6.8 <i>n</i>	5100 <i>n</i>	390 <i>n</i>	
Ethion	563122	5.00E-04 <i>l</i>				18 <i>n</i>	1.8 <i>n</i>	0.68 <i>n</i>	510 <i>n</i>	39 <i>n</i>	
2-Epoxyethanol acetate	111159	3.00E-01 <i>a</i>	4.00E-01 <i>h</i>	5.71E-02 <i>l</i>	4.80E-02 <i>h</i>	11000 <i>n</i>	1100 <i>n</i>	410 <i>n</i>	310000 <i>n</i>	23000 <i>n</i>	
2-Epoxyethanol	110805					15000 <i>n</i>	210 <i>n</i>	540 <i>n</i>	410000 <i>n</i>	31000 <i>n</i>	
Ethyl acrylate	140895					1.4 <i>c</i>	0.13 <i>c</i>	0.066 <i>c</i>	60 <i>c</i>	13 <i>c</i>	
EPTC (S-Ethyl diisopropylcarbamate)	759944	2.50E-02 <i>l</i>				910 <i>n</i>	91 <i>n</i>	34 <i>n</i>	260000 <i>n</i>	20000 <i>n</i>	
Ethyl ether	60297	2.00E-01 <i>l</i>				1200 <i>n</i>	730 <i>n</i>	270 <i>n</i>	200000 <i>n</i>	16000 <i>n</i>	
Ethyl methacrylate	97632	9.00E-02 <i>h</i>				3300 <i>n</i>	330 <i>n</i>	120 <i>n</i>	92000 <i>n</i>	7000 <i>n</i>	
Ethyl acetate	141786	9.00E-01 <i>l</i>				33000 <i>n</i>	3300 <i>n</i>	1200 <i>n</i>	920000 <i>n</i>	70000 <i>n</i>	
Ethylbenzene	100414	1.00E-01 <i>l</i>		2.86E-01 <i>l</i>		1300 <i>n</i>	1000 <i>n</i>	140 <i>n</i>	100000 <i>n</i>	7800 <i>n</i>	
Ethylene cyanohydrin	109784	3.00E-01 <i>h</i>				11000 <i>n</i>	1100 <i>n</i>	410 <i>n</i>	310000 <i>n</i>	23000 <i>n</i>	
Ethylene diamine	107153	2.00E-02 <i>h</i>				730 <i>n</i>	73 <i>n</i>	27 <i>n</i>	20000 <i>n</i>	16000 <i>n</i>	
Ethylene glycol	107211	2.00E+00 <i>l</i>				73000 <i>n</i>	7300 <i>n</i>	2700 <i>n</i>	1000000 <i>n</i>	160000 <i>n</i>	
Ethylene glycol, monobutyl ether	111782		5.71E-03 <i>h</i>			210 <i>n</i>	21 <i>n</i>				
Ethylene oxide	75218			1.02E-00 <i>h</i>	3.50E-01 <i>h</i>	0.066 <i>c</i>	0.018 <i>c</i>	0.0031 <i>c</i>	2.8 <i>c</i>	0.63 <i>c</i>	
Ethylene thiourea (ETU)	96457	8.00E-05 <i>l</i>		1.19E-01 <i>h</i>		0.57 <i>c</i>	0.053 <i>c</i>	0.027 <i>c</i>	24 <i>c</i>	5.4 <i>c</i>	
Ethyl P-nitrophenyl phenylphosphothioate	2104645	1.00E-05 <i>l</i>				0.37 <i>n</i>	0.037 <i>n</i>	0.014 <i>n</i>	10 <i>n</i>	0.78 <i>n</i>	
Ethylnitrosourea	759739			1.40E-02 <i>w</i>		0.00048 <i>c</i>	0.000045 <i>c</i>	0.000023 <i>c</i>	0.02 <i>c</i>	0.0046 <i>c</i>	
Ethylphthalyl ethyl glycolate	84720	3.00E+00 <i>l</i>	8.00E-03 <i>l</i>			110000 <i>n</i>	11000 <i>n</i>	4100 <i>n</i>	1000000 <i>n</i>	230000 <i>n</i>	
Express	10120					290 <i>n</i>	29 <i>n</i>	11 <i>n</i>	8200 <i>n</i>	630 <i>n</i>	
Penamphos	22224926	2.50E-04 <i>l</i>				91 <i>n</i>	0.91 <i>n</i>	0.34 <i>n</i>	260 <i>n</i>	20 <i>n</i>	
Fluometuron	2164172	1.30E-02 <i>l</i>				470 <i>n</i>	47 <i>n</i>	18 <i>n</i>	13000 <i>n</i>	1000 <i>n</i>	
Fluoride	7782414	6.00E-02 <i>l</i>				2200 <i>n</i>	220 <i>n</i>	81 <i>n</i>	61000 <i>n</i>	4700 <i>n</i>	
Fluoridone	59756604	8.00E-02 <i>l</i>				2900 <i>n</i>	290 <i>n</i>	110 <i>n</i>	82000 <i>n</i>	6300 <i>n</i>	
Flurprimidol	56425913	2.00E-02 <i>l</i>				730 <i>n</i>	73 <i>n</i>	27 <i>n</i>	20000 <i>n</i>	1600 <i>n</i>	
Flutolanil	66332965	6.00E-02 <i>l</i>				2200 <i>n</i>	220 <i>n</i>	81 <i>n</i>	61000 <i>n</i>	4700 <i>n</i>	
Fluvalinate	69409945	1.00E-02 <i>l</i>		3.50E-03 <i>l</i>	1.90E-01 <i>l</i>	370 <i>n</i>	37 <i>n</i>	14 <i>n</i>	10000 <i>n</i>	780 <i>n</i>	
Folpet	133073	1.00E-01 <i>l</i>				19 <i>n</i>	1.8 <i>c</i>	0.9 <i>c</i>	820 <i>c</i>	180 <i>c</i>	
Fomesafen	72178020					0.35 <i>c</i>	0.033 <i>c</i>	0.017 <i>c</i>	15 <i>c</i>	3.4 <i>c</i>	
Fonofos	944229	2.00E-03 <i>l</i>				73 <i>n</i>	7.3 <i>n</i>	2.7 <i>n</i>	2000 <i>n</i>	160 <i>n</i>	
Formaldehyde	50000	2.00E+00 <i>h</i>				7300 <i>n</i>	7300 <i>n</i>	270 <i>n</i>	200000 <i>n</i>	16000 <i>n</i>	
Fosetyl-al	64186			4.55E-02 <i>l</i>		110000 <i>n</i>	11000 <i>n</i>	4100 <i>n</i>	1000000 <i>n</i>	160000 <i>n</i>	
Furan	39148248	3.00E-03 <i>l</i>	1.43E-02 <i>a</i>	5.00E-01 <i>h</i>	3.80E-00 <i>h</i>	0.018 <i>c</i>	0.0016 <i>c</i>	0.00083 <i>c</i>	0.75 <i>c</i>	0.17 <i>c</i>	
Furazolidone	67458					110 <i>n</i>	52 <i>n</i>	4.1 <i>n</i>	3100 <i>n</i>	230 <i>n</i>	
Furfural	98011	3.00E-03 <i>l</i>				0.0013 <i>c</i>	0.00013 <i>c</i>	0.000063 <i>c</i>	0.057 <i>c</i>	0.013 <i>c</i>	
Furium	531828					2.2 <i>c</i>	0.21 <i>c</i>	0.11 <i>c</i>	95 <i>c</i>	21 <i>c</i>	
Furnecycloex	60568050										

Source: i=RIS **a**=HEAST **d**=HEAST alt. **w**=Withdrawn from RIS or HEAST **e**=Other EPA documentsBasis of RBC: *c*=carcinogenic effects *n*=noncarcinogenic effects.

Contaminant	CAS	RDo	RD <sub>1</sub>	CPS <sub>0</sub>	CPS <sub>1</sub>	V <sub>0</sub>	Tan water	Ambient air	Fish	Industrial soil	Residential soil
		mg/kg/d	mg/kg/d	kg/d/mg	kg/d/mg	kg/d	kg/m <sup>3</sup>	kg/m <sup>3</sup>	mg/kg	mg/kg	mg/kg
Glufosinate-ammonium	77192822	4.00E-04 <i>i</i>	4.00E-04 <i>i</i>			15 <i>n</i>	1.5 <i>n</i>	0.54 <i>n</i>	410 <i>n</i>	31 <i>n</i>	
Glycidaldehyde	765344	4.00E-04 <i>i</i>	2.46E-04 <i>h</i>			15 <i>n</i>	1 <i>n</i>	0.54 <i>n</i>	410 <i>n</i>	31 <i>n</i>	
Glyphosate	1071836	1.00E-01 <i>i</i>				3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>	7800 <i>n</i>	
Haloxyp-methyl	69806402	5.00E-05 <i>i</i>				1.8 <i>n</i>	0.18 <i>n</i>	0.068 <i>n</i>	51 <i>n</i>	3.9 <i>n</i>	
Harmony	79277273	1.30E-02 <i>i</i>				470 <i>n</i>	47 <i>n</i>	18 <i>n</i>	13000 <i>n</i>	1000 <i>n</i>	
HCH (alpha)	319846			6.30E+00 <i>i</i>	6.30E+00 <i>i</i>	0.011 <i>c</i>	0.0099 <i>c</i>	0.0005 <i>c</i>	0.45 <i>c</i>	0.1 <i>c</i>	
HCH (beta)	319857	3.00E-04 <i>i</i>	1.80E+00 <i>i</i>			0.037 <i>c</i>	0.0035 <i>c</i>	0.0018 <i>c</i>	1.6 <i>c</i>	1.6 <i>c</i>	0.35 <i>c</i>
HCH (gamma) Lindane	58899	3.00E-04 <i>i</i>	1.30E+00 <i>h</i>			0.052 <i>c</i>	0.0048 <i>c</i>	0.0024 <i>c</i>	2.2 <i>c</i>	2.2 <i>c</i>	0.49 <i>c</i>
HCH-technical	608731			1.30E+00 <i>i</i>	1.79E+00 <i>i</i>	0.037 <i>c</i>	0.0035 <i>c</i>	0.0018 <i>c</i>	1.6 <i>c</i>	1.6 <i>c</i>	0.35 <i>c</i>
Heptachlor	76448	5.00E-04 <i>i</i>	4.50E+00 <i>i</i>			0.023 <i>c</i>	0.0014 <i>c</i>	0.0007 <i>c</i>	0.64 <i>c</i>	0.14 <i>c</i>	
Heptachlor epoxide	1024573	1.30E-05 <i>i</i>		9.10E+00 <i>i</i>	9.10E+00 <i>i</i>	0.012 <i>c</i>	0.0069 <i>c</i>	0.0035 <i>c</i>	0.31 <i>c</i>	0.07 <i>c</i>	
Hexabromobenzene	87821	2.00E-03 <i>i</i>				12 <i>n</i>	7.3 <i>n</i>	2.7 <i>n</i>	2900 <i>n</i>	160 <i>n</i>	
Hexachlorobenzene	119741	8.00E-04 <i>i</i>	1.60E+00 <i>i</i>			0.066 <i>c</i>	0.0039 <i>c</i>	0.002 <i>c</i>	1.8 <i>c</i>	0.4 <i>c</i>	
Hexachlorobutadiene	87683	2.00E-04 <i>h</i>	7.80E-02 <i>i</i>			0.14 <i>c</i>	0.081 <i>c</i>	0.04 <i>c</i>	37 <i>c</i>	8.2 <i>c</i>	
Hexachlorocyclopentadiene	77474	7.00E-03 <i>i</i>	2.00E-05 <i>h</i>			0.15 <i>n</i>	0.073 <i>n</i>	9.5 <i>n</i>	7200 <i>n</i>	550 <i>n</i>	
Hexachlorodibenz-p-dioxin mixture	19408743			6.20E+03 <i>i</i>	4.55E+03 <i>i</i>	0.000011 <i>c</i>	1.40E-06 <i>c</i>	5.10E-07 <i>c</i>	0.00046 <i>c</i>	0.0001 <i>c</i>	
Hexachloroethane	67721	1.00E-03 <i>i</i>		1.40E-02 <i>i</i>		0.75 <i>c</i>	0.45 <i>c</i>	0.23 <i>c</i>	200 <i>c</i>	46 <i>c</i>	
Hexachlorophopene	70304	3.00E-04 <i>i</i>				11 <i>n</i>	1.1 <i>n</i>	0.41 <i>n</i>	310 <i>n</i>	23 <i>n</i>	
Hexahydro-1,3,5-trinitro-1,3,5-triazine	121824	3.00E-03 <i>i</i>	2.46E-06 <i>i</i>			0.61 <i>c</i>	0.057 <i>c</i>	0.029 <i>c</i>	26 <i>c</i>	5.8 <i>c</i>	
1,6-Hexamethylene diisocyanate	222060					0.1 <i>a</i>	0.01 <i>a</i>				
n-Hexane	110543	6.00E-02 <i>h</i>	5.71E-02 <i>i</i>			350 <i>n</i>	210 <i>n</i>	81 <i>n</i>	61000 <i>n</i>	4700 <i>n</i>	
Hexazinone	51235042	3.30E-02 <i>i</i>				1200 <i>n</i>	120 <i>n</i>	45 <i>n</i>	34000 <i>n</i>	2600 <i>n</i>	
Hydrazine, hydrazine sulfate	302012			3.00E+00 <i>i</i>	1.71E+01 <i>i</i>	0.022 <i>c</i>	0.0037 <i>c</i>	0.0011 <i>c</i>	0.95 <i>c</i>	0.21 <i>c</i>	
Hydrogen chloride	7647010			2.00E-03 <i>i</i>		73 <i>n</i>	7.3 <i>n</i>				
Hydrogen sulfide	7783064	3.00E-03 <i>i</i>	2.57E-04 <i>i</i>			110 <i>n</i>	0.94 <i>n</i>	4.1 <i>n</i>	3100 <i>n</i>	230 <i>n</i>	
Hydroquinone	123319	4.00E-02 <i>h</i>				1500 <i>n</i>	150 <i>n</i>	54 <i>n</i>	41000 <i>n</i>	3100 <i>n</i>	
Imazalil	35554440	1.30E-02 <i>i</i>				470 <i>n</i>	47 <i>n</i>	18 <i>n</i>	13000 <i>n</i>	1000 <i>n</i>	
Imazquin	81333377	2.50E-01 <i>i</i>				9100 <i>n</i>	910 <i>n</i>	340 <i>n</i>	260000 <i>n</i>	20000 <i>n</i>	
Iprodione	36734197	4.00E-02 <i>i</i>				1500 <i>n</i>	150 <i>n</i>	54 <i>n</i>	41000 <i>n</i>	3100 <i>n</i>	
Isobutanol	78831	3.00E-01 <i>i</i>				1800 <i>n</i>	1100 <i>n</i>	410 <i>n</i>	310000 <i>n</i>	23000 <i>n</i>	
Isophorone	78591	2.00E-01 <i>i</i>		9.50E-04 <i>i</i>		71 <i>c</i>	6.6 <i>c</i>	3.3 <i>c</i>	3000 <i>c</i>	670 <i>c</i>	
Isopropanil	33820330	1.50E-02 <i>i</i>				550 <i>n</i>	55 <i>n</i>	20 <i>n</i>	15000 <i>n</i>	1200 <i>n</i>	
Isopropyl methyl phosphonic acid	18325348	1.00E-01 <i>i</i>				3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>	7800 <i>n</i>	
Isoxaben	825585307	5.00E-02 <i>i</i>				1800 <i>n</i>	180 <i>n</i>	68 <i>n</i>	51000 <i>n</i>	3900 <i>n</i>	
Kepone	143390			1.40E+01 <i>i</i>		0.0037 <i>c</i>	0.00035 <i>c</i>	0.00018 <i>c</i>	0.16 <i>c</i>	0.035 <i>c</i>	
Lactofen	77501634	2.00E-03 <i>i</i>				73 <i>n</i>	7.3 <i>n</i>	2.7 <i>n</i>	2800 <i>n</i>	160 <i>n</i>	
Lead (tetrachethyl)	78002	1.00E-07 <i>i</i>				0.0037 <i>n</i>	0.00037 <i>n</i>	0.00014 <i>n</i>	0.1 <i>n</i>	0.0078 <i>n</i>	
Linuron	330552	2.00E-03 <i>i</i>				73 <i>n</i>	7.3 <i>n</i>	2.7 <i>n</i>	2000 <i>n</i>	160 <i>n</i>	
Lithium	7439932	2.00E-02 <i>i</i>				730 <i>n</i>	73 <i>n</i>	27 <i>n</i>	20000 <i>n</i>	1600 <i>n</i>	
Londex	830565996	2.00E-01 <i>i</i>				7300 <i>n</i>	730 <i>n</i>	270 <i>n</i>	200000 <i>n</i>	16000 <i>n</i>	
Malathion	121735	2.00E-02 <i>i</i>				730 <i>n</i>	73 <i>n</i>	27 <i>n</i>	20000 <i>n</i>	1600 <i>n</i>	
Maleic anhydride	108316	1.00E-01 <i>i</i>				3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>	7800 <i>n</i>	

AR301279

Source: i=IRIS, h=HEAST, a=HEAST alt., w=Withdrawn from IRIS or HEAST, e=EP4-EC4.0 provisional, o=Other EPA documents

Basis of RBC: c=carcinogenic effects, n=noncarcinogenic effects.

Contaminant	CAS	RfD <sup>a</sup> mg/kg/d	RfD <sup>b</sup> mg/kg/d	CP50 kg/dm <sup>3</sup>	CP50 kg/dm <sup>3</sup>	Ambient air µg/m <sup>3</sup>	Fish mg/kg	Industrial soil mg/kg	Residential soil mg/kg
Maleic hydrazide	123331	5.00E-01 /				18000 n	1800 n	510000 n	39000 n
Malononitrile	109773	2.00E-05 h				0.73 n	0.073 n	20 n	1.6 n
Mancorezol	8018017	3.00E-02 h				1100 n	110 n	31000 n	2300 n
Maneb	12427382	5.00E-03 /				180 n	18 n	5100 n	390 n
Manganese and compounds	7439965	5.00E-03 /	1.43E-05 /			180 n	0.052 n	6.8 n	390 n
Mephosfolan	950107	9.00E-05 h				3.3 n	0.33 n	0.12 n	92 n
Mepiquat chloride	24307264	3.00E-02 /				1100 n	110 n	41 n	31000 n
Mercury (inorganic)	7439976	3.00E-04 n	8.57E-05 h			11 n	0.31 n	0.41 n	310 n
Mercury (methyl)	22967926	3.00E-04 /				11 n	1.1 n	0.41 n	310 n
Merphos	150305	3.00E-05 /				1.1 n	0.11 n	0.041 n	31 n
Merphos oxide	78488	3.00E-05 /				1.1 n	0.11 n	0.041 n	31 n
Metalaxyl	57837191	6.00E-02 /				220 n	220 n	81 n	61000 n
Methacrylonitrile	126987	1.00E-04 /	2.00E-04 *			3.7 n	0.73 n	0.14 n	100 n
Methamidophos	10265926	5.00E-05 /				1.8 n	0.18 n	0.068 n	51 n
Methanol	67561	5.00E-01 /				18000 n	1800 n	510000 n	39000 n
Methidathion	950378	1.00E-03 /				910 n	91 n	34 n	26000 n
Methionyl	16752775	2.50E-02 /				180 n	18 n	5100 n	390 n
Methoxychlor	72335	5.00E-03 /				37 n	3.7 n	1.4 n	1000 n
2-Methoxyethanol acetate	110496	2.00E-03 *				73 n	7.3 n	2.7 n	2000 n
2-Methoxyethanol	109864	1.00E-03 n	5.71E-03 /			37 n	21 n	1.4 n	1000 n
2-Methoxy-5-nitroaniline	99592		4.60E-02 h			1.5 c	0.14 c	0.036 c	62 c
Methyl acetate	79209	1.00E-00 h				37000 n	3700 n	1400 n	1000000 n
Methyl acrylate	96333	3.00E-02 *				110 n	110 n	41 n	31000 n
2-Methylaniline hydrochloride	636215		1.80E-01 h			0.37 c	0.035 c	0.018 c	16 c
2-Methylaniline	95534		2.40E-01 h			0.28 c	0.026 c	0.013 c	12 c
Methyl chlorocarbonate	79221	1.00E-00 w				37000 n	3700 n	1400 n	1000000 n
4-(2-Methyl-4-chlorophenoxy)butyric acid	94815	1.00E-02 /				370 n	37 n	14 n	10000 n
2-Methyl-4-chlorophenoxyacetic acid	94746	5.00E-04 /				1.8 n	1.8 n	0.68 n	510 n
2-(2-Methyl-14-chlorophenoxy)propionic acid	93652	1.00E-03 /				37 n	3.7 n	1.4 n	1000 n
Methylcyclohexane	108872		8.57E-01 h			31000 n	3100 n		
Methylene bromide	74953	1.00E-02 *				61 n	37 n	14 n	10000 n
Methylene chloride	75092	6.00E-02 /	8.57E-01 h	7.50E-03 /	1.64E-03 /	4.1 c	3.8 c	0.42 c	380 c
4,4'-Methylene bis(2-chloroaniline)	101144	7.00E-04 h		1.30E-01 h	1.30E-01 h	0.52 c	0.048 c	0.024 c	22 c
4,4'-Methylenebisbenzenamine	101779			2.50E-01 w		0.27 c	0.025 c	0.013 c	11 c
4,4'-Methylene bis(N,N'-dimethyl)aniline	101611			4.60E-02 /		1.5 c	0.14 c	0.059 c	62 c
4,4'-Methylenediphenyl isocyanate	101688		5.71E-06 /			**	0.035 n	0.021 n	
Methyl ethyl ketone	78933	6.00E-01 /	2.86E-01 /			190 n	1000 n	810 n	610000 n
Methyl hydrazine	60344			1.10E+00 w		0.061 c	0.0057 c	0.0029 c	2.6 c
Methyl isobutyl ketone	108101	8.00E-02 h		2.29E-02 *		290 n	84 n	110 n	82000 n
Methyl methacrylate	80626		8.00E-02 h			2 c	0.19 c	0.096 c	87 c
2-Methyl-5-nitroaniline	99558			3.30E-02 h		9.1 n	0.91 n	0.34 n	260 n
Methyl parathion	298000	2.50E-04 /							20 n

AR301280

Sources: *i*=RIS *a*=HEAST *d*=HEAST alt. *w*=Withdrawn from RIS or HEAST *e*=EP4-EC40 provisional *o*=Other EPA documentsBasis of RBC: *c*=carcrogenic effects *n*=noncarcrogenic effects

Contaminant	CAS	RDo mg/kg/d	RDI mg/kg/d	CPSD kg/d/mi <sup>2</sup>	CPSI kg/mi <sup>2</sup>	V C	Tap water mg/L	Ambient air μg/m <sup>3</sup>	Fish mg/kg	Industrial soil mg/kg	Residential soil mg/kg
2-Methylphenol (o-cresol)	95487	5.00E-02 <i>i</i>					180 <i>n</i>	180 <i>n</i>	68 <i>n</i>	51000 <i>n</i>	3900 <i>n</i>
3-Methylphenol (m-cresol)	103394	5.00E-02 <i>i</i>					180 <i>n</i>	180 <i>n</i>	68 <i>n</i>	51000 <i>n</i>	3900 <i>n</i>
4-Methylphenol (p-cresol)	106445	5.00E-03 <i>n</i>					180 <i>n</i>	18 <i>n</i>	6.8 <i>n</i>	5100 <i>n</i>	390 <i>n</i>
Methyl styrene (mixture)	25013154	6.00E-03 <i>a</i>	1.14E-02 <i>a</i>				60 <i>n</i>	42 <i>n</i>	8.1 <i>n</i>	6100 <i>n</i>	470 <i>n</i>
Methyl styrene (alpha)	98839	7.00E-02 <i>n</i>					430 <i>n</i>	260 <i>n</i>	95 <i>n</i>	72000 <i>n</i>	5500 <i>n</i>
Methyl tertbutyl ether (MTBE)	1634044	5.00E-03 <i>a</i>	8.57E-01 <i>f</i>				160 <i>n</i>	3100 <i>n</i>	6.8 <i>n</i>	5100 <i>n</i>	390 <i>n</i>
Metolachlor (Dual)	51218452	1.50E-01 <i>n</i>					550 <i>n</i>	550 <i>n</i>	200 <i>n</i>	150000 <i>n</i>	12000 <i>n</i>
Metribuzin	21807649	2.50E-02 <i>f</i>					910 <i>n</i>	91 <i>n</i>	34 <i>n</i>	260000 <i>n</i>	2000 <i>n</i>
Mirex	23858555	2.00E-04 <i>f</i>	1.80E+00 <i>w</i>				0.037 <i>c</i>	0.0035 <i>c</i>	0.0018 <i>c</i>	1.6 <i>c</i>	0.35 <i>c</i>
Molinate	2212671	2.00E-03 <i>f</i>					180 <i>n</i>	18 <i>n</i>	6.8 <i>n</i>	5100 <i>n</i>	390 <i>n</i>
Molybdenum	7439987	5.00E-03 <i>f</i>					3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>	7800 <i>n</i>
Monochloramine	10599903	1.00E-01 <i>f</i>					73 <i>n</i>	73 <i>n</i>	2.7 <i>n</i>	2000 <i>n</i>	160 <i>n</i>
Naled	300765	2.00E-03 <i>f</i>					0.00052 <i>c</i>	0.000048 <i>c</i>	0.000024 <i>c</i>	0.022 <i>c</i>	0.0049 <i>c</i>
2-Naphthylamine	91598		1.30E+02 <i>a</i>				3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>	7800 <i>n</i>
Napropamide	15299997	1.00E-01 <i>f</i>					8.40E-01 <i>f</i>	0.0075 <i>c</i>			
Nickel refinery dust							730 <i>n</i>	73 <i>n</i>	27 <i>n</i>	20000 <i>n</i>	1600 <i>n</i>
Nickel (soluble salts)	7440020	2.00E-02 <i>f</i>					1.70E+00 <i>f</i>	0.0037 <i>c</i>			
Nickel subsulfide	12035722						55 <i>n</i>	5.5 <i>n</i>	2 <i>n</i>	1500 <i>n</i>	120 <i>n</i>
Nitrapyrin	1929824	1.50E-03 <i>w</i>					58000 <i>n</i>	5800 <i>n</i>	2200 <i>n</i>	1000000 <i>n</i>	130000 <i>n</i>
Nitrate	14797558	1.60E+00 <i>f</i>					3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>	7800 <i>n</i>
Nitric Oxide	10102339	1.00E-01 <i>w</i>					3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>	7800 <i>n</i>
Nitric	14797650	1.00E-01 <i>f</i>					2.2 <i>n</i>	0.21 <i>n</i>	0.081 <i>n</i>	61 <i>n</i>	4.7 <i>n</i>
2-Nitroaniline	88744	6.00E-05 <i>w</i>	5.71E-05 <i>n</i>				110 <i>n</i>	11 <i>n</i>	4.1 <i>n</i>	3100 <i>n</i>	230 <i>n</i>
3-Nitroaniline	99692	3.00E-03 <i>a</i>					110 <i>n</i>	11 <i>n</i>	4.1 <i>n</i>	3100 <i>n</i>	230 <i>n</i>
4-Nitroaniline	100016	3.00E-03 <i>a</i>					3.4 <i>n</i>	2.1 <i>n</i>	0.68 <i>n</i>	510 <i>n</i>	39 <i>n</i>
Nitrobenzene	98953	5.00E-04 <i>f</i>	5.71E-04 <i>a</i>				2600 <i>n</i>	260 <i>n</i>	95 <i>n</i>	72000 <i>n</i>	5500 <i>n</i>
Nitrofrantoin	67209	7.00E-02 <i>n</i>					0.045 <i>c</i>	0.00067 <i>c</i>	0.0021 <i>c</i>	1.9 <i>c</i>	0.43 <i>c</i>
Nitrofurazone	59870						37000 <i>n</i>	3700 <i>n</i>	1400 <i>n</i>	1000000 <i>n</i>	78000 <i>n</i>
Nitrogen dioxide	10102440	1.00E-00 <i>w</i>					3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>	7800 <i>n</i>
Nitroguanidine	556887	1.00E-01 <i>f</i>					2300 <i>n</i>	230 <i>n</i>	84 <i>n</i>	630000 <i>n</i>	4800 <i>n</i>
4-Nitrophenol	100027	6.20E-02 <i>c</i>					210 <i>n</i>	0.00067 <i>c</i>			
2-Nitropropane	79469		5.71E-03 <i>f</i>				0.012 <i>c</i>	0.0011 <i>c</i>	0.00058 <i>c</i>	0.53 <i>c</i>	0.12 <i>c</i>
N-Nitrosodi-n-butylamine	924163		5.40E+00 <i>f</i>	5.60E+00 <i>f</i>			0.024 <i>c</i>	0.0022 <i>c</i>	0.0011 <i>c</i>	1 <i>c</i>	0.23 <i>c</i>
N-Nitrosodieethylamine	1116547		2.80E+00 <i>f</i>				0.00045 <i>c</i>	0.00041 <i>c</i>	0.000421 <i>c</i>	0.0019 <i>c</i>	0.0043 <i>c</i>
N-Nitrosodimethylamine	55185		1.50E+02 <i>f</i>	1.51E+02 <i>f</i>			0.0013 <i>c</i>	0.00062 <i>c</i>	0.00062 <i>c</i>	0.013 <i>c</i>	
N-Nitrosophenylamine	86306		4.90E-03 <i>f</i>				14 <i>c</i>	1.3 <i>c</i>	0.64 <i>c</i>	580 <i>c</i>	130 <i>c</i>
N-Nitroso di-n-propylamine	621647		7.00E+00 <i>f</i>				0.0096 <i>c</i>	0.00049 <i>c</i>	0.00045 <i>c</i>	0.41 <i>c</i>	0.091 <i>c</i>
N-Nitroso-N-methylethylamine	10595556		2.20E+01 <i>f</i>				0.0031 <i>c</i>	0.00028 <i>c</i>	0.00014 <i>c</i>	0.13 <i>c</i>	0.029 <i>c</i>
N-Nitrosopyrrolidine	930552		2.10E+00 <i>f</i>	2.13E+00 <i>f</i>			0.032 <i>c</i>	0.0029 <i>c</i>	0.0015 <i>c</i>	1.4 <i>c</i>	0.3 <i>c</i>
m-Nitrotoluene	99891	1.00E-02 <i>n</i>					61 <i>n</i>	37 <i>n</i>	14 <i>n</i>	100000 <i>n</i>	780 <i>n</i>
o-Nitrotoluene	88722	1.00E-02 <i>n</i>					61 <i>n</i>	37 <i>n</i>	14 <i>n</i>	100000 <i>n</i>	780 <i>n</i>

DR 301281

Source: l=IRIS h=HEAST a=HEAST alk. w=WinDrawn from IRIS or HEAST c=EP4-EC40 provisional o=Other EPA documents

Basis of RBC: c=carcinogenic effects n=noncarcinogenic effects

Contaminant	CAS	RfD mg/kg/d	RD mg/kg/d	CR50 mg/kg/d	CPSi kg/dm <sup>3</sup>	VOC mg/m <sup>3</sup>	Tap water mg/L	Ambient air mg/m <sup>3</sup>	Fish mg/kg	Industrial soil mg/kg	Residential soil mg/kg
p-Nitrotoluene	99990	1.00E-02 h				...	61 n	37 n	14 n	10000 n	780 n
Norfurazon	27314132	4.00E-02 l					1500 n	150 n	54 n	41000 n	3100 n
NuStar	85399199	7.00E-04 l					26 n	2.6 n	0.95 n	720 n	55 n
Octabromodiphenyl ether	32536520	3.00E-03 l					110 n	11 n	4.1 n	3100 n	230 n
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	26914110	5.00E-02 l					1800 n	180 n	68 n	51000 n	3900 n
Octamethylpyrophosphoramide	152169	2.00E-03 h					73 n	7.3 n	2.7 n	2000 n	160 n
Oryzalin	19044383	5.00E-02 l					1800 n	180 n	68 n	51000 n	3900 n
Oxadiazon	19666309	5.00E-03 l					180 n	18 n	6.8 n	5100 n	390 n
Oxamyl	23135220	2.50E-02 l					910 n	91 n	34 n	26000 n	2000 n
Oxyfluorfen	42874033	3.00E-03 l					110 n	11 n	4.1 n	3100 n	230 n
Paclobutrazol	76738320	1.30E-02 l					470 n	47 n	18 n	13000 n	1000 n
Paraquat	1910425	4.50E-03 l					160 n	16 n	6.1 n	4600 n	350 n
Parathion	56382	6.00E-03 h					220 n	22 n	8.1 n	6100 n	470 n
Pebutate	1114712	5.00E-02 h					1800 n	180 n	68 n	51000 n	3900 n
Pendimethalin	40487421	4.00E-02 l					1500 n	150 n	54 n	41000 n	3100 n
Pentabromo-6-chloro cyclohexane	87843		2.30E-02 h				2.9 c	0.27 c	0.14 c	120 c	28 c
Pentabromodiphenyl ether	32534819	2.00E-03 l					73 n	7.3 n	2.7 n	2000 n	160 n
Pentachlorobenzene	608935	8.00E-04 l				...	4.9 n	2.9 n	1.1 n	820 n	63 n
Pentachloronitrobenzene	82688	3.00E-03 l		2.60E-01 h		...	0.041 c	0.024 c	0.012 c	11 c	2.5 c
Pentachlorophenol	87865	3.00E-02 l		1.20E-01 l			0.36 c	0.052 c	0.026 c	24 c	5.3 c
Permethrin	52645531	5.00E-02 l					1800 n	180 n	68 n	51000 n	3900 n
Phenmedipham	13684634	2.50E-01 l					910 n	910 n	340 n	260000 n	20000 n
Phenol	108952	6.00E-01 l					22000 n	2200 n	810 n	610000 n	47000 n
m-Phenylenediamine	108452	6.00E-03 l					220 n	22 n	8.1 n	6100 n	470 n
p-Phenylenediamine	106503	1.90E-01 h					6900 n	690 n	260 n	190000 n	15000 n
Phenylnicuric acetate	62384	8.00E-05 l					2.9 n	0.29 n	0.11 n	82 n	6.3 n
2-Phenylphenol	90437		1.94E-03 h				35 c	.32 c	1.6 c	1500 c	330 c
Phorate	298022	2.00E-04 h					7.3 n	0.73 n	0.27 n	290 n	16 n
Phosmet	73216	2.00E-02 l					730 n	73 n	27 n	28000 n	18000 n
Phosphine	7803512	3.00E-04 l		8.57E-06 h			11 n	0.031 n	0.41 n	310 n	23 n
Phosphorus (white)	7723140	2.00E-05 l					0.73 n	0.073 n	0.027 n	20 n	1.6 n
p-Phthalic acid	100210	1.00E+00 h					37000 n	3700 n	1400 n	1000000 n	78000 n
Phthalic anhydride	85449	2.00E+00 l		3.43E-01 h			73000 n	1300 n	2700 n	1000000 n	160000 n
Picloram	1918021	7.00E-02 l					2600 n	260 n	95 n	72000 n	5500 n
Pirimiphos-methyl	29223297	1.00E-02 l					370 n	37 n	14 n	10000 n	780 n
Polybrominated biphenyls		7.00E-06 h		8.90E-00 h			0.0076 c	0.0007 c	0.00035 c	0.32 c	0.072 c
Polychlorinated biphenyls (PCBs)	1336363		1.70E+00 l				0.087 c	0.00081 c	0.00041 c	0.37 c	0.083 c
Aroclor 1016	12674112	7.00E-05 l					2.6 n	0.26 n	0.095 n	72 n	5.5 n
Aroclor 1254	11097591	2.00E-05 l					0.73 n	0.073 n	0.027 n	20 n	1.6 n
Polychlorinated terphenyls (PCTs)			4.50E+00 l				0.015 c	0.0014 c	0.0007 c	0.64 c	0.14 c
Polynuclear aromatic hydrocarbons							2200 n	220 n	81 n	61000 n	4700 n
Acenaphthene	83329	6.00E-02 l									

AR301282

Source: i=IRIS h=HEAST d=HEAST alt. w=Withdrawn from IRIS or HEAST e=EP4-ECMO provisional o=Other EPA documents

Basis of RBC: c=carcinogenic effects n=noncarcinogenic effects.

Contaminant	CAS	RDo mg/kg/d	RDI mg/kg/d	CPSI kg/d/mg	Ambient air ug/m <sup>3</sup>	Fish ug/kg	Industrial soil mg/kg	Residential soil mg/kg
Anthracene	120127	3.00E-01 /			11000 n	1100 n	410 n	310000 n
Benz[al]pyrene	50328			7.30E+00 /	6.10E+00 n	0.0092 c	0.001 c	0.00043 c
Benz[b]fluoranthene	205992			7.30E-01 *	6.10E-01 *	0.092 c	0.01 c	0.0043 c
Benz[k]fluoranthene	207089			7.30E-02 *	6.10E-02 *	0.92 c	0.1 c	0.043 c
Benz[anthracene]	565533			7.30E-01 *	6.10E-01 *	0.092 c	0.01 c	0.0043 c
Chrysene	218019			7.30E-03 *	6.10E-03 *	9.2 c	1 c	0.43 c
Dibenzo[a,h]anthracene	53703			7.30E+00 *	6.10E+00 *	0.0092 c	0.001 c	0.00043 c
Fluoranthene	206440	4.00E-02 /			1500 n	150 n	54 n	41000 n
Fluorene	86737	4.00E-02 /			1500 n	150 n	54 n	41000 n
Indeno[1,2,3-cd]pyrene	193395			7.30E-01 *	6.10E-01 *	0.092 c	0.01 c	0.0043 c
Naphthalene	91203	4.00E-02 *			1500 n	150 n	54 n	41000 n
Pyrene	129000	3.00E-02 /			1100 n	110 n	41 n	31000 n
Prochloraz	67747095	9.00E-03 /		1.50E-01 /		0.45 c	0.042 c	0.021 c
Profluralin	26399360	6.00E-03 n			220 n	22 n	8.1 n	6100 n
Prometon	1610180	1.50E-02 /			550 n	55 n	20 n	15000 n
Prometryn	7287196	4.00E-03 /			150 n	15 n	5.4 n	4100 n
Pronamide	23950385	7.30E-02 /			2700 n	270 n	100 n	71000 n
Propachlor	1918167	1.30E-02 /			470 n	47 n	18 n	13000 n
Propanil	709988	5.00E-03 /			180 n	18 n	6.8 n	5100 n
Propargite	2312358	2.00E-02 /			730 n	73 n	27 n	20000 n
Propargyl alcohol	107197	2.00E-03 /			73 n	73 n	2.7 n	20000 n
Propazine	139402	2.00E-02 /			730 n	73 n	27 n	20000 n
Prophan	122429	2.00E-02 /			730 n	73 n	27 n	20000 n
Propiconazole	60207901	1.30E-02 /			470 n	47 n	18 n	13000 n
Propylene glycol	57556	2.00E-01 *			73000 n	73000 n	27000 n	100000 n
Propylene glycol, monoethyl ether	52125538	7.00E-01 n			26000 n	26000 n	950 n	720000 n
Propylene glycol, monomethyl ether	107982	7.00E-01 n	5.71E-01 /		26000 n	2100 n	950 n	720000 n
Propylene oxide	75569	8.57E-03 /	2.40E-01 /		0.28 c	0.49 c	0.013 c	12 c
Pursuit	81335775	2.50E-01 /			910 n	910 n	340 n	269000 n
Pydrin	51630381	2.50E-02 /			910 n	91 n	34 n	26000 n
Pyridine	110861	1.00E-03 /			37 n	3.7 n	1.4 n	1000 n
Quinalphos	13593038	5.00E-04 /			18 n	1.8 n	0.68 n	510 n
Quinolone	91225		1.20E+01 *		0.0056 c	0.0052 c	0.00026 c	0.24 c
Resmethrin	10463868	3.00E-02 /			1100 n	110 n	41 n	31000 n
Ronnel	299443	5.00E-02 n			1800 n	180 n	68 n	51000 n
Rotenone	83794	4.00E-03 /			150 n	15 n	5.4 n	4100 n
Savay	76587050	2.50E-02 /			910 n	91 n	34 n	26000 n
Selenious Acid	77839008	5.00E-03 /			180 n	18 n	6.8 n	5100 n
Selenium	778292	5.00E-03 /			180 n	18 n	6.8 n	5100 n
Selenourea	630104	5.00E-03 n			180 n	18 n	6.8 n	5100 n
Sethoxydium	74051802	9.00E-02 /			3300 n	330 n	120 n	92000 n
Silver and compounds	7440224	5.00E-03 /			180 n	18 n	6.8 n	5100 n

Source: *i*=IRIS *h*=HEAST *a*=HEAST alt. *w*=WRI drawn from IRIS or HEAST *e*=EPA-ERCA provisional *o*=Other EPA documentsBasis of RBC: *c*=carcinogenic effects *n*=noncarcinogenic effects

Contaminant	CAS	RIDo mg/kg/d	RfD mg/kg/d	CPSo kg/d/mg	CPNI kg/d/mg	V c	Ambient air µg/m <sup>3</sup>	Fish mg/kg	Industrial soil mg/kg	Residential soil mg/kg
Simazine	122349	5.00E-03 <i>l</i>	1.20E-01 <i>h</i>			0.56 <i>c</i>	0.052 <i>c</i>	0.026 <i>c</i>	24 <i>c</i>	5.3 <i>c</i>
Sodium azide	26628228	4.00E-03 <i>l</i>				150 <i>n</i>	15 <i>n</i>	5.4 <i>n</i>	4100 <i>n</i>	310 <i>n</i>
Sodium diethylthiocarbamate	148185	3.00E-02 <i>l</i>	2.70E-01 <i>h</i>			0.25 <i>c</i>	0.023 <i>c</i>	0.012 <i>c</i>	11 <i>c</i>	2.4 <i>c</i>
Sodium fluoroacetate	62748	2.00E-05 <i>l</i>				0.73 <i>n</i>	0.073 <i>n</i>	0.027 <i>n</i>	20 <i>n</i>	1.6 <i>n</i>
Sodium metavanadate	13718268	1.00E-03 <i>h</i>				37 <i>n</i>	3.7 <i>n</i>	1.4 <i>n</i>	1000 <i>n</i>	78 <i>n</i>
Strontium, stable	7440246	6.00E-01 <i>l</i>				22000 <i>n</i>	2200 <i>n</i>	810 <i>n</i>	610000 <i>n</i>	47000 <i>n</i>
Strychnine	57249	3.00E-04 <i>l</i>				11 <i>n</i>	1.1 <i>n</i>	0.41 <i>n</i>	310 <i>n</i>	23 <i>n</i>
Styrene	100425	2.00E-01 <i>l</i>	2.86E-01 <i>l</i>			1600 <i>n</i>	1000 <i>n</i>	270 <i>n</i>	200000 <i>n</i>	16000 <i>n</i>
Systhane	88671890	2.50E-02 <i>l</i>				910 <i>n</i>	91 <i>n</i>	34 <i>n</i>	26000 <i>n</i>	2000 <i>n</i>
2,3,7,8-TCDD (dioxin)	1746016		1.56E+05 <i>h</i>	1.16E+05 <i>h</i>		4.30E-07 <i>c</i>	5.40E-08 <i>c</i>	2.00E-08 <i>c</i>	0.000018 <i>c</i>	4.10E-06 <i>c</i>
Tebuthiuron	34014181	7.00E-02 <i>l</i>				2600 <i>n</i>	260 <i>n</i>	95 <i>n</i>	72000 <i>n</i>	5500 <i>n</i>
Tenebphos	3383968	2.00E-02 <i>h</i>				730 <i>n</i>	73 <i>n</i>	27 <i>n</i>	20000 <i>n</i>	1600 <i>n</i>
Terbacil	5902512	1.30E-02 <i>l</i>				470 <i>n</i>	47 <i>n</i>	18 <i>n</i>	13000 <i>n</i>	1000 <i>n</i>
Terbufos	13071799	2.50E-05 <i>h</i>				0.91 <i>n</i>	0.091 <i>n</i>	0.034 <i>n</i>	26 <i>n</i>	2 <i>n</i>
Terbutryn	886500	1.00E-03 <i>l</i>				37 <i>n</i>	3.7 <i>n</i>	1.4 <i>n</i>	1000 <i>n</i>	78 <i>n</i>
1,2,4,5-Tetrachlorobenzene	95943	3.00E-04 <i>l</i>				1.8 <i>n</i>	1.1 <i>n</i>	0.41 <i>n</i>	310 <i>n</i>	23 <i>n</i>
1,1,1,2-Tetrachloroethane	630206	3.00E-02 <i>l</i>	2.60E-02 <i>l</i>	2.03E-01 <i>l</i>		0.41 <i>c</i>	0.24 <i>c</i>	0.12 <i>c</i>	110 <i>c</i>	25 <i>c</i>
1,1,2,2-Tetrachloroethane	79345	2.00E-01 <i>l</i>	2.03E-01 <i>l</i>	2.59E-02 <i>l</i>		0.052 <i>c</i>	0.031 <i>c</i>	0.016 <i>c</i>	14 <i>c</i>	3.2 <i>c</i>
Tetrachloroethylene (PCE)	127184	1.00E-02 <i>l</i>	5.20E-02 <i>•</i>	2.03E-03 <i>•</i>		1.1 <i>c</i>	3.1 <i>c</i>	0.061 <i>c</i>	55 <i>c</i>	12 <i>c</i>
2,3,4,6-Tetrachlorophenol	58902	3.00E-02 <i>l</i>				1100 <i>n</i>	110 <i>n</i>	41 <i>n</i>	31000 <i>n</i>	2300 <i>n</i>
p,a,a,Tetrachlorotoluene	5216251		2.00E+01 <i>h</i>			0.00053 <i>c</i>	0.00031 <i>c</i>	0.00016 <i>c</i>	0.14 <i>c</i>	0.032 <i>c</i>
Tetrachlorovinphos	961115	3.00E-02 <i>l</i>		2.40E-02 <i>h</i>		2.8 <i>c</i>	0.26 <i>c</i>	0.13 <i>c</i>	120 <i>c</i>	27 <i>c</i>
Tetraethylidithiopyrophosphate	36689245	5.00E-04 <i>l</i>				18 <i>n</i>	1.8 <i>n</i>	0.68 <i>n</i>	510 <i>n</i>	39 <i>n</i>
Thallic oxide	1314325	7.00E-05 <i>w</i>				2.6 <i>n</i>	0.26 <i>n</i>	0.095 <i>n</i>	72 <i>n</i>	5.5 <i>n</i>
Thallium										
Thallium acetate	563688	9.00E-05 <i>l</i>				3.3 <i>n</i>	0.33 <i>n</i>	0.12 <i>n</i>	92 <i>n</i>	7 <i>n</i>
Thallium carbonate	6533739	8.00E-05 <i>l</i>				2.9 <i>n</i>	0.29 <i>n</i>	0.11 <i>n</i>	82 <i>n</i>	6.3 <i>n</i>
Thallium chloride	7791120	8.00E-05 <i>l</i>				2.9 <i>n</i>	0.29 <i>n</i>	0.11 <i>n</i>	82 <i>n</i>	6.3 <i>n</i>
Thallium nitrate	16102451	9.00E-05 <i>l</i>				3.3 <i>n</i>	0.33 <i>n</i>	0.12 <i>n</i>	92 <i>n</i>	7 <i>n</i>
Thallium selenite	12039520	9.00E-05 <i>w</i>				3.3 <i>n</i>	0.33 <i>n</i>	0.12 <i>n</i>	92 <i>n</i>	7 <i>n</i>
Thallium sulfate	7446186	8.00E-05 <i>l</i>				2.9 <i>n</i>	0.29 <i>n</i>	0.11 <i>n</i>	82 <i>n</i>	6.3 <i>n</i>
Thiopencarb	28249776	1.00E-02 <i>l</i>				370 <i>n</i>	37 <i>n</i>	14 <i>n</i>	10000 <i>n</i>	780 <i>n</i>
2-(Thiocyanomethylthio)-benzothiazole	21564170	3.00E-02 <i>h</i>				1100 <i>n</i>	110 <i>n</i>	41 <i>n</i>	31000 <i>n</i>	2300 <i>n</i>
Thiofanox	39196184	3.00E-04 <i>h</i>				11 <i>n</i>	1.1 <i>n</i>	0.41 <i>n</i>	310 <i>n</i>	23 <i>n</i>
Thiophanate-methyl	23564058	8.00E-02 <i>l</i>				290 <i>n</i>	290 <i>n</i>	110 <i>n</i>	82000 <i>n</i>	6300 <i>n</i>
Thiram	137263	5.00E-03 <i>l</i>				180 <i>n</i>	18 <i>n</i>	6.8 <i>n</i>	5100 <i>n</i>	390 <i>n</i>
Tin and compounds		6.00E-01 <i>h</i>				22000 <i>n</i>	2200 <i>n</i>	810 <i>n</i>	610000 <i>n</i>	47000 <i>n</i>
Toluene	108883	2.00E-01 <i>l</i>	1.14E-01 <i>w</i>			750 <i>n</i>	420 <i>n</i>	270 <i>n</i>	200000 <i>n</i>	16000 <i>n</i>
Toluene-2,4-diamine	95807		3.20E+00 <i>h</i>			0.021 <i>c</i>	0.002 <i>c</i>	0.0099 <i>c</i>	0.89 <i>c</i>	0.2 <i>c</i>
Toluene-2,5-diamine	95705	6.00E-01 <i>h</i>				22000 <i>n</i>	2200 <i>n</i>	810 <i>n</i>	610000 <i>n</i>	47000 <i>n</i>
Toluene-2,6-diamine	823405	2.00E-01 <i>h</i>				730 <i>n</i>	730 <i>n</i>	270 <i>n</i>	200000 <i>n</i>	16000 <i>n</i>
p-Tolidine	106490		1.90E-01 <i>h</i>			0.35 <i>c</i>	0.033 <i>c</i>	0.017 <i>c</i>	15 <i>c</i>	3.4 <i>c</i>

Sources: *i*=IRIS *b*=HEAST *a*=HEAST alt. *w*=Withdrawn from IRIS or HEAST *e*=EPA-RCRA provisional *c*=Other EPA documents

Contaminant	CAS	Basis of RBC:				c=carcinogenic effects				b=noncarcinogenic effects				
		RfD <sup>a</sup>	RfD <sup>b</sup>	CPS <sup>c</sup> 0 kg/dm <sup>3</sup>	CPS <sup>c</sup> 1 kg/dm <sup>3</sup>	V 0 kg/m <sup>3</sup>	V 1 kg/m <sup>3</sup>	Ambient air	Fish	Soil	Industrial soil	Residential soil		
Toxaphene	8001352	66841256	7.50B-03 <i>b</i>	1.0E+00 <i>b</i>	1.12E+00 <i>b</i>	0.061 <i>c</i>	0.0056 <i>c</i>	0.0029 <i>c</i>	2.6 <i>c</i>	0.58 <i>c</i>	5	590 <i>c</i>	590 <i>c</i>	
Tralomethrin	2303175	1.30B-02 <i>b</i>				270 <i>n</i>	27 <i>n</i>	10 <i>n</i>	7700 <i>n</i>	13000 <i>n</i>	1000 <i>n</i>	1000 <i>n</i>	1000 <i>n</i>	
Triasulfuron	82097505	1.00B-02 <i>b</i>				470 <i>n</i>	47 <i>n</i>	18 <i>n</i>	13000 <i>n</i>	10000 <i>n</i>	780 <i>n</i>	780 <i>n</i>	780 <i>n</i>	
1,2,4-Tribromobenzene	615543	5.00B-03 <i>b</i>				370 <i>n</i>	37 <i>n</i>	14 <i>n</i>	10000 <i>n</i>	5100 <i>n</i>	390 <i>n</i>	390 <i>n</i>	390 <i>n</i>	
Tributyltin oxide (TBTO)	5634935	3.00B-05 <i>b</i>				30 <i>n</i>	18 <i>n</i>	6.8 <i>n</i>	5100 <i>n</i>	260 <i>c</i>	19 <i>c</i>	19 <i>c</i>	19 <i>c</i>	
2,4,6-Trichloroaniline hydrochloride	33663502	634935				1.1 <i>n</i>	0.11 <i>n</i>	0.041 <i>n</i>	31 <i>n</i>	2.3 <i>c</i>	1.9 <i>c</i>	1.9 <i>c</i>	1.9 <i>c</i>	
2,4,6-Trichlorobenzene	120821	1.00E-02 <i>b</i>	5.71B-02 <i>b</i>			***	190 <i>n</i>	210 <i>n</i>	14 <i>n</i>	10000 <i>n</i>	780 <i>n</i>	780 <i>n</i>	780 <i>n</i>	
1,1,1-Trichloroethane	71556	9.00B-02 <i>w</i>	2.86B-01 <i>w</i>			***	1300 <i>n</i>	1000 <i>n</i>	120 <i>n</i>	92000 <i>n</i>	7000 <i>n</i>	7000 <i>n</i>	7000 <i>n</i>	
1,1,2-Trichloroethane	79005	4.00B-03 <i>b</i>		5.70B-02 <i>b</i>	5.60B-02 <i>b</i>	0.19 <i>c</i>	0.11 <i>c</i>	0.055 <i>c</i>	50 <i>c</i>	11 <i>c</i>	11 <i>c</i>	11 <i>c</i>	11 <i>c</i>	
Trichloroethylene (TCE)	79016	6.00B-03 <i>b</i>		1.10B-02 <i>w</i>	6.00B-03 <i>w</i>	1.5 <i>c</i>	1 <i>c</i>	0.29 <i>c</i>	260 <i>c</i>	58 <i>c</i>	58 <i>c</i>	58 <i>c</i>	58 <i>c</i>	
Trichlorofluoromethane	75694	3.00B-01 <i>b</i>	2.00B-01 <i>a</i>			***	1300 <i>n</i>	730 <i>n</i>	410 <i>n</i>	310000 <i>n</i>	23000 <i>n</i>	23000 <i>n</i>	23000 <i>n</i>	23000 <i>n</i>
2,4,5-Trichlorophenol	95954	1.00B-01 <i>b</i>				3700 <i>n</i>	370 <i>n</i>	140 <i>n</i>	100000 <i>n</i>	7800 <i>n</i>	7800 <i>n</i>	7800 <i>n</i>	7800 <i>n</i>	
2,4,6-Trichlorophenol	88062			1.10B-02 <i>b</i>	1.09B-02 <i>b</i>	6.1 <i>c</i>	0.57 <i>c</i>	0.29 <i>c</i>	260 <i>c</i>	58 <i>c</i>	58 <i>c</i>	58 <i>c</i>	58 <i>c</i>	
2,4,5-Trichlorophenoxyacetic acid	93765	1.00B-02 <i>b</i>				370 <i>n</i>	37 <i>n</i>	14 <i>n</i>	10000 <i>n</i>	7800 <i>n</i>	7800 <i>n</i>	7800 <i>n</i>	7800 <i>n</i>	
1,1,2-Trichloropropane	93721	8.00B-03 <i>b</i>				290 <i>n</i>	29 <i>n</i>	11 <i>n</i>	8200 <i>n</i>	630 <i>n</i>	630 <i>n</i>	630 <i>n</i>	630 <i>n</i>	
1,2,3-Trichloropropene	598776	5.00B-03 <i>b</i>				30 <i>n</i>	18 <i>n</i>	6.8 <i>n</i>	5100 <i>n</i>	390 <i>n</i>	390 <i>n</i>	390 <i>n</i>	390 <i>n</i>	
1,2,3-Trichloropropene	96184	6.00B-03 <i>b</i>		7.00B+00 <i>b</i>		***	0.0015 <i>c</i>	0.00089 <i>c</i>	0.00045 <i>c</i>	0.41 <i>c</i>	0.091 <i>c</i>	0.091 <i>c</i>	0.091 <i>c</i>	
1,1,2-Trichloro-1,2,2-trifluoroethane	96195	5.00B-03 <i>b</i>				30 <i>n</i>	18 <i>n</i>	6.8 <i>n</i>	5100 <i>n</i>	390 <i>n</i>	390 <i>n</i>	390 <i>n</i>	390 <i>n</i>	
Tridiphane	76131	3.00E+01 <i>b</i>	8.57E+00 <i>b</i>			***	59000 <i>n</i>	31000 <i>n</i>	41000 <i>n</i>	1000000 <i>n</i>	1000000 <i>n</i>	1000000 <i>n</i>	1000000 <i>n</i>	
Triethylamine	58138082	3.00E-03 <i>b</i>		2.00E-03 <i>b</i>		110 <i>n</i>	11 <i>n</i>	4.1 <i>n</i>	3100 <i>n</i>	230 <i>n</i>	230 <i>n</i>	230 <i>n</i>	230 <i>n</i>	
Trifluralin	121448	7.50B-03 <i>b</i>		7.70B-03 <i>b</i>		73 <i>n</i>	73 <i>n</i>	4.1 <i>n</i>	3100 <i>n</i>	230 <i>n</i>	230 <i>n</i>	230 <i>n</i>	230 <i>n</i>	
1,2,4-Trimethylbenzene	95636	5.00B-04 <i>b</i>				***	3 <i>n</i>	1.8 <i>n</i>	0.68 <i>n</i>	510 <i>n</i>	39 <i>n</i>	39 <i>n</i>	39 <i>n</i>	
1,3,5-Trimethylbenzene	108678	4.00B-04 <i>b</i>				***	2.4 <i>n</i>	1.5 <i>n</i>	0.54 <i>n</i>	410 <i>n</i>	31 <i>n</i>	31 <i>n</i>	31 <i>n</i>	
Trimethyl phosphate	512561			3.70B-02 <i>b</i>		1.8 <i>c</i>	0.17 <i>c</i>	0.085 <i>c</i>	77 <i>c</i>	17 <i>c</i>				
1,3,5-Trinitrobenzene	99354	5.00B-05 <i>b</i>				1.8 <i>n</i>	0.18 <i>n</i>	0.068 <i>n</i>	51 <i>n</i>	3.9 <i>n</i>				
Trinitrophenylnethylnitramine	479458	1.00B-02 <i>b</i>		3.00B-02 <i>b</i>		370 <i>n</i>	37 <i>n</i>	14 <i>n</i>	10000 <i>n</i>	780 <i>n</i>				
2,4,6-Trinitrotoluene	118967	5.00B-04 <i>b</i>		3.00B-02 <i>b</i>		2.2 <i>c</i>	0.21 <i>c</i>	0.11 <i>c</i>	95 <i>c</i>	21 <i>c</i>				
Uranium (soluble salts)	7440611	3.00E-03 <i>b</i>				110 <i>n</i>	11 <i>n</i>	4.1 <i>n</i>	3100 <i>n</i>	230 <i>n</i>				
Vanadium	7440622	7.00B-03 <i>b</i>				260 <i>n</i>	26 <i>n</i>	9.5 <i>n</i>	7200 <i>n</i>	550 <i>n</i>				
Vanadium pentoxide	1314621	9.00E-03 <i>b</i>				330 <i>n</i>	33 <i>n</i>	12 <i>n</i>	9200 <i>n</i>	700 <i>n</i>				
Vanadium sulfate	36907423	2.00B-02 <i>b</i>				730 <i>n</i>	73 <i>n</i>	27 <i>n</i>	20000 <i>n</i>	1600 <i>n</i>				
Venam	1929777	1.00E-03 <i>b</i>				910 <i>n</i>	91 <i>n</i>	34 <i>n</i>	26000 <i>n</i>	2000 <i>n</i>				
Vinclozolin	50471448	2.50B-02 <i>b</i>				37 <i>n</i>	3.7 <i>n</i>	1.4 <i>n</i>	1000 <i>n</i>	78 <i>n</i>				
Vinyl acetate	108054	1.00E+00 <i>b</i>	5.71B-02 <i>b</i>			37000 <i>n</i>	210 <i>n</i>	1400 <i>n</i>	1000000 <i>n</i>	78000 <i>n</i>				
Vinyl bromide	593602	5.71B-04 <i>b</i>				5.2 <i>n</i>	3.1 <i>n</i>							
Vinyl chloride	75014			1.92E+00 <i>b</i>	3.00E-01 <i>b</i> ***	0.019 <i>c</i>	0.021 <i>c</i>	0.0017 <i>c</i>	1.5 <i>c</i>	0.34 <i>c</i>				
Warfarin	81812	3.00B-04 <i>b</i>				11 <i>n</i>	1.1 <i>n</i>	0.41 <i>n</i>	310 <i>n</i>	23 <i>n</i>				
m-Xylene	108323	2.00E+00 <i>b</i>	2.00B-01 <i>w</i>			1400 <i>n</i>	730 <i>n</i>	2700 <i>n</i>	1000000 <i>n</i>	160000 <i>n</i>				
o-Xylene	95476	2.00E+00 <i>b</i>	2.00B-01 <i>w</i>			1400 <i>n</i>	730 <i>n</i>	2700 <i>n</i>	1000000 <i>n</i>	160000 <i>n</i>				

AR30128

Sources: i=RIS h=HEAST a=HEAST alt. w=Withdrawn from IRIS or HEAST e=EPA/ECAO provisional o=Other EPA documents

Basis of RBC: c=carcinogenic effects n=noncarcinogenic effects

Contaminant	CAS	RIDo mg/kg/d	RDI mg/kg/d	CPSI	Ambient air µg/m <sup>3</sup>	Ambient water µg/l	Industrial air mg/m <sup>3</sup>	Industrial soil mg/kg	Residential soil mg/kg
p-Xylene	1.06E+05	2.00E+00 i	6.57E-02 w	***	5.20E+02 n	3.10E+02 n			
Xylene (mixed)	1.33E+06	2.00E+00 i		***	12000 n	7300 n	2700 n	100000 n	160000 n
Zinc	7.44E+06	3.00E-01 i			11000 n	1100 n	410 n	310000 n	23000 n
Zinc phosphide	1.31E+06	3.00E-04 i			11 n	1.1 n	0.41 n	310 n	23 n
Zineb	1.21E+07	5.00E-02 i			1800 n	180 n	68 n	51000 n	3900 n